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REFORM IN PRIMARY EDUCATION

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WITH A PREFACE

BY

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PREFACE

My friend Professor Hagmann has expressed a wish that I should introduce him to the English public; and I now do so with very great pleasure, regretting only that the introducer is not a person of more importance, better able to secure for his interesting book the attention it deserves.

Dr. Hagmann is a Swiss and a Professor in the Canton School at St. Gall. For many years he has devoted his energies to teaching, and he possesses, what is to my mind the best qualification a teacher can possess, that of looking upon the pupils entrusted to him as so many intelligent beings, endowed with feelings, and not, as is often the case, as mere units of humanity requiring the cane or birch at short intervals.

The keynote to Prof. Hagmann's system is "kindness." He is a firm believer in its beneficial effects, and thinks the best teacher to be the man who is in entire sympathy with his pupils. This view I heartily endorse, for I have always endeavoured to practise it myself, convinced as I am that therein lies the great *secret* of successful teaching. I wish those who take a different view, and who are staunch believers in the so-called "robust system," would only try what kindness can do when combined with firmness and intelligence. Prof. Hagmann's long experience in teaching has naturally suggested to him most of the reforms he here advocates, for which a certain amount of credit is due to this country.

Prof. Hagmann was a young man when he visited England in 1884. This visit was a revelation to him, and what he then saw of English schools and English methods, made a strong and lasting impression on his mind. He soon discovered

that English methods are essentially different from those adopted on the Continent, and if he did not invariably approve of them, he nevertheless realised that they contain a very great deal that is worthy of imitation.

He was especially struck with the happy mixture of work and play which is so great a feature of English schools. Later on he discovered that many of the English he came in contact with, were just as well educated as the bulk of people on the Continent, and that practically the same results had been obtained with much less hardship to the individual. This early formed opinion has been confirmed by later experience. No wonder, then, that Prof. Hagmann lays so much stress on the desirability of curtailing the hours of work in foreign schools. It must be admitted that Prof. Hagmann's condemnation of long hours of school-work is more than justified, for the time spent in the school-room abroad is certainly somewhat in excess.

To expect boys and girls to devote eleven,

twelve, and occasionally fourteen hours a day to actual work is hardly reasonable, and that such a system is still in existence does not speak highly for the intelligence of those responsible for its maintenance.

Personally, I am not prepared to say that English boys and girls have much to complain of in the way of long hours, but I do not hesitate to say that their fellow scholars in Continental schools do certainly spend too many hours over school exercises. In this, as in other points, I am speaking from personal experience, and I have not yet forgotten that at our school, in Paris, we began work at 5.30 A.M., and that we went on steadily until 8.30 P.M., with but two hours and a half for meals and play.

After returning to Switzerland Prof. Hagmann thought over what he had seen, and in 1887 he embodied the result of his reflections in the following book, which first appeared at the annual meeting of Swiss teachers at St. Gall.

The time was not yet ripe for the reforms

which he advocated, yet the book was much discussed and very favourably received, and the author had the gratification of discovering, soon after, that his efforts had not been wholly in vain. His ideas gradually made their way, and it soon became evident that the number of those who realised how necessary were the reforms advocated was steadily increasing.

The book gave rise to much controversy; but if there was divergence of opinion on special points, there was also a general agreement as to the actual need of reform. Most teachers were agreed as to the needlessly long hours during which children were kept at work, others wished to introduce new subjects in the curriculum, or to modify those actually taught, but very few indeed were those who objected to every kind of reform.

It was very gratifying to the author to find that the majority of teachers were convinced that reforms were necessary, and the interest evinced by the general public about the various educational questions was also a

very hopeful sign. That the public was really interested in the subject was made evident by a demand for a new edition of Prof. Hagmann's book.

Those who know what the demand for treatises on education generally is, will see in this bare fact a proof that Prof. Hagmann's labours were not without public recognition.

This second edition * is now before the English public in its English dress, and I am convinced that the most casual reader will soon realise that it contains a very great deal that is worth pondering over.

Prof. Hagmann's ideas are well worthy the attention of all teachers. They are always sensible, always clearly and plainly expressed ; and if on one or two minor points one may dissent from his views, there is one feature that should be prominently brought forward—the essentially national character of the educational system of which he has made himself the advocate. He has realised, and rightly,

* "Zur Reform eines Lehrplanes der Volksschule."—2nd Edition, St. Gallen, 1904.

that every country has its idiosyncrasies, its peculiar needs and aptitudes, and that if boys resemble each other a good deal all the world over in their mischievous propensities, they also differ vastly in mental predilections, tastes, and qualities.

For those who may doubt the correctness of such a statement I may adduce one or two proofs in support. Let us take "History" for instance.

This subject, which so many English boys find distasteful, is on the contrary very much liked by French boys. Personally, I have a lurking suspicion that if English boys do not take kindly to the subject, it is largely due to the fact that history is not generally taught in a way calculated to arouse interest; that possibly English boys are somewhat weary of the Danish and Norman kings, and that they would prefer hearing something about the doings of less remote ages.

Be that as it may, the fact remains that French boys delight in history, and that English boys do not. Then again, whilst a

class of Swiss or German boys will take the greatest delight in the study of plants, a class of French boys—and English ones too—would soon fall asleep if the masters began to tell them about the structure of leaves or stems.

But I must not keep the reader too long from the book itself, for it is far more interesting than these introductory remarks.

I will therefore content myself with adding that Prof. Hagmann's book is essentially calculated to make us realise, more forcibly than ever, that the duties and responsibilities which devolve on all instructors of youth, are very great indeed.

The book is small in bulk, but great in thoughtfulness, and in many parts it gives us a pathetic glimpse of the days of our childhood. The Professor wishes us to cultivate mind and body alike, by leading children, and not by driving them. He strongly deprecates the unnatural system of forcing, a system too often resorted to, not for the benefit of the scholars, but to gratify parental

vanity, or perhaps to enable a teacher to earn a special grant.

After many years devoted to teaching I have learnt something from my friend's book, and possibly others younger may do the same.

Those who have at heart the welfare of the youth of this country or of any country, be they teachers or not, should read these pages, from which they will assuredly learn much.

LEON DELBOS.

OXFORD, *March* 1906.

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I

THE PRESENT CONDITION OF PRIMARY SCHOOLS

In studying the aims and requirements of elementary schools one is struck by the divergence of opinions met with on all sides regarding what is expected from them.

Some wish an elementary school to be chiefly an educational institution, others simply a place for learning. This difference is more marked than is generally supposed. Whilst some expect that a school should bestow a general education on its pupils, others desire that practical knowledge should be imparted. Some aim at a liberal education, others at mere knowledge. The educationist wishes for the former, the practical man for the latter ; the family desires the former, the

State the latter. On visiting different schools we find this divergence yet still more striking.

The richer the district, the greater the time and means it can afford for teaching, and then many more also are the demands which are made: more time is devoted to singing, drawing and gymnastics; thus the school has, if we may term it, a more strictly educational character. On the other hand, the poorer the country-school, the smaller the means which it has at its disposal, the fewer the chances the pupils have of further advancing their education in continuation or secondary schools, and the more is the teaching limited to reading, writing and arithmetic. The chief aim of such a school is the so-called highest possible development of "elementary" subjects. In fact, a rich school adapts itself to the wants of the family; a poor one, owing to lack of means and time, adheres to the more practical side of education. Is not this a state of things which ought not to exist?

A pupil who has attended a school open

only for six or nine months in the year, and has only studied reading, writing and arithmetic, will have few opportunities of filling up the gap in his education. More than half the number of school children have to be content with the most limited amount of learning. This arises from the fact that they have been taught only a few subjects throughout the whole time of their school career. Therefore the problem whether elementary schools are to be educational institutions or simply places for elementary learning, has to be solved.

The solution is an easy one. It is in the interest of every family to send its children to school. Generally speaking, parents have neither the time nor capacity for attending to the development of their children; for a part of the day therefore the school undertakes this task; it "develops" the children, and in order to do this in a beneficial way it must "educate" them. Children requiring, as they ever do, education and teaching, should be influenced by the

principles which ought to govern a family. A school, therefore, is an educational institution.

Naturally schools and parents do not both educate in the same manner or by the same means. A family, with its different members, constitutes a somewhat patriarchal state, having different grades of authority. A school, on the other hand, recognises only one head. In the former, education is methodical, in the latter, un-methodical. A family lives for itself, while a school gathers the children together for a general purpose. The family educates constantly, a school only temporarily. Then also family and school differ in the means of education. Appliances and subjects of teaching are peculiar to schools, therefore they are self-contained institutions. It should be borne in mind that a school has to undertake something which a family alone is not capable of doing, namely, the general education of children.

Since for the greatest number of children

a primary school is the only educational institution open to them, it is essential that it should work hand in hand with home-life. Having the same educational aim, it should unite its influence with that of the family to further a harmonious development of the children. This seems to be always neglected.

There are many parishes possessed of but scanty means, while the families inhabiting them are in very poor circumstances; in such cases the children, poorly clad and ill-fed, spend the best part of their childhood in unhealthy schoolrooms. If in these cases the chief stress be laid on the school, then the latter is not only out of touch with the family but stands in direct opposition to it. The children are kept at school for the better part of the day and do not return to their families either improved in body or mind, nor have they acquired any knowledge that will serve a practical end in after life. By this antiquated method the pupils learn nothing except reading, writing and arith-

metic, with which they are satiated, whilst other branches are merely alluded to.

Let us look at the results which an ordinary primary school can show.

Suppose that a child when it leaves school can write a letter, read mechanically well, and knows the elementary rules of arithmetic: what can it do with these attainments? Most of our children in the course of time become either workmen, farmers, day labourers, or employees in manufactories; when they do so, what advantage do they derive from the education they gained at school? Writing is of such little use to most of them that they are very unwilling to practise it, and a few years later find difficulty in expressing themselves by letter. Reading is limited to the newspaper, almanack or Prayer Book; they seldom read anything else. A few find arithmetic prove useful for elementary book-keeping or for simple mental calculations. We could not name any other subjects the knowledge of which, such young people, after having reached the age,

say, of twenty, owed to their lengthy sojourn at school.

Was it necessary, in order to obtain such poor results, to keep a child daily for so many years imprisoned in a pent-up school-room? Would it not have been possible to learn as much in half the time and to have put the other half to better use? Was it wise to make reading, writing and arithmetic the sole end of school instruction? Could not better results have been obtained by considering these accomplishments as of minor importance? Could not other subjects also have been taken?

Putting aside all unnecessary explanations, we wish to state that the results derived from the practice of laying the chief stress on reading, writing and arithmetic have, so far, been extremely poor. These so-called "elementary" subjects have neither offered our children elementary knowledge nor given them any practical experience. Moreover, from a practical point of view they have not improved the condition of the working

classes, despite the number of years which the latter sacrificed in their youth for the sake of being educated. It must be remembered that the working classes need reading, writing and arithmetic only *indirectly*, while their chief requirement is a knowledge of which they can make *direct* use. We shall devote our attention to this as we proceed. Here we only wish to note the unsatisfactory consequences resulting from a partial system of teaching, disregarding the real needs of popular education.

As we wish primary schools to be educational institutions we have to fix the limits for their field of activity, and the chief factors must be sought afterwards. Here we encounter the second great incongruity, which is, perhaps, more fatal in its results than the first. In public schools there are many factors, some working together, some opposing one another, which point the direction the school-work should follow; some of these factors converge towards the

same end, whilst others are antagonistic to each other.

1. The State looks upon the schools as its own personal property, and compels them to adopt a curriculum dictated by law.
2. The higher schools which receive pupils from the primary ones do so only on condition that the latter fulfil certain requirements.
3. A great number of teachers, wishing to obtain rapid results, demand an increase of work from their pupils.
4. As the greater number of pupils terminate their education on leaving the primary schools, the practical wants of daily life make themselves more and more felt.

Some tendencies are especially misleading. As a rule, the general tendency is to prepare for secondary, and, later on, for higher schools. One has to rush, cram, and drive. If in a class there are only two pupils wishing to proceed to a higher school, the

whole school has to suffer for their sake. The secondary school desires to pose as a higher school, instead of priding itself on being the goal of elementary education. This vanity has exercised a very baneful influence over primary schools and their teachers, and the evil will grow if such schools continue to strive after higher branches, instead of perfecting their own subjects of elementary education.

This one-sided tendency is seen everywhere in schools, and thus they become training institutions instead of educational ones, yielding undesirable and unhealthy results.

Superabundance of material, undigested and unassimilated knowledge, uselessness of the scholar in the future, and incapacity of adapting himself to circumstances, are the usual results of such a mode of teaching.

We are all fully well aware of this. There is hardly a conference, or a school report, or an educational work which does not draw attention to these shortcomings. Yet,

nevertheless, we do not alter our course: but rather do we give this tendency our support, for we all have an artificial aim in view. This is declared to be an urgent necessity; an elementary school is forced to cultivate every possible subject, and to overburden itself with all kinds of learning. An error is thus committed which has led to so much overwork, that schools stand in danger of complete degeneration.

We will here merely mention a common mistake of this method of teaching which has made this excess of work keenly felt, and which has produced disastrous and unsatisfactory results. When a new subject has been added to the programme it has seldom been merged into the whole curriculum, but has been, as it were, allowed to hang on loosely. It would not be difficult to prove this, but to do so would take us too far from our theme. The programmes are so overburdened with subjects that it seems very difficult to simplify them. Every one believes some branch of teaching indispensable either for religious,

social, moral, or æsthetic ends, and that the programme can only be carefully modified but not really simplified, as no subject hitherto treated is superfluous. Everything that one has already prepared is accounted a necessity. Whether the pupils feel the same necessity, or whether they are capable, bodily and mentally, of fulfilling these requirements, and whether they are sufficiently advanced to assimilate what is offered them, are questions that are never asked. This is the chief point to be discussed in this booklet. Whatever method or aim we may pursue, whatever seems to us most urgent, whoever are the masters we employ, we must first of all study the nature of our pupils, and to omit doing so must be looked upon as an unpardonable omission.

We will not here examine how often we have neglected to study the nature of school children, and to watch the trend of their talents. To reveal the sins committed on children at school, and at home, would be to draw such a deplorable picture of existing

facts, that there would be little hope of obtaining a more successful kind of teaching. Enough that we have found at last a clearly defined starting-point, plainly fixed by the following considerations :

1. A healthy child, seven years old,* has undergone a certain development.
2. Bodily and mentally, it stands on a definitely fixed point.
3. It undergoes, from its seventh to its fifteenth year, a definite development.
4. This development can be improved by reasonable training.

Therefore, the nature of children should be the basis on which all school work should be built, and the one and only aim pursued should be the development of pupils, not in view of any future needs, but for the sake of development alone.

Whatever is not in harmony with the

* For obvious reasons, we transfer the entry of a child into its primary school from its sixth to its seventh year, and allow it eight years of school instruction.

above must be rooted out, whatever yields good results should be persevered in. Until such an end has been obtained we cannot speak of a real elementary school. All other proposed reforms are of secondary importance, both in value and worth.

We must admit that this fundamental law has been recognised and its fulfilment been demanded, but nobody can say that it ever has been enforced. Perhaps a few excellent educationists have, here and there, examined it, but it has not yet been adopted as a general guide in teaching. There is not a single school in which the fruits of hurtful tendencies cannot flourish ; it is just the best teachers who are loudest in their complaints, and who regret most keenly that they have to reluctantly sacrifice their better judgment to the present system of teaching. Should this state of things continue, it would be far better to abolish schools as State institutions, and to have instead private educational establishments in which one could, at any rate, be free to

teach as he thought best. It is to be hoped that the community at large will be able to choose the better of the two systems.

Having laid it down as a principle that schools should make the general development of the children their sole starting-point, and endeavour to deduce the conclusions, we shall be told that these demands contain nothing new. Three axioms are well-known by all teachers:

1. Proceed from simple to complex;
2. From concrete to abstract;
3. From fact to form.

The proof of the importance of these axioms, which form an integral part of every good method of teaching, is that a positive difference exists between elementary education and the modern side of schools.

But the general cry for reform in our public schools contradicts the above statement. The loud demand for a remodelling of the school curriculum refutes the

optimistic assertion that everything is as perfect as it ought to be, since anything perfect excludes improvement.

Even among the friends of reform we meet with great divergence of opinion.

Many ask: "How is the curriculum of public schools to be simplified, reformed?" My opponents answer that it can be done by paying more attention to elementary subjects, minimising the "modern" ones. Yet, notwithstanding this, the same men who desire reform wish to prolong the time spent at school, to increase the number of weekly lessons, and to permit home-work.

In utter contrast to these partisans of our schools, we desire reform on a totally different plan. We take our standpoint from the *nature* of a child, and ask:

1. What is elementary to a child?
2. What relation do elementary subjects, as taught at present, bear to a child's development?

Only after a searching inquiry into these questions do we think it possible to frame a curriculum of studies built upon a reasonable basis for teachers, and in harmony with the development of children.

II

THE CHILD AS THE CENTRE OF SCHOOL LIFE

BEFORE proceeding with our investigation we must indulge in a few general introductory remarks. Referring to what has already been said, we are bound to protest against two errors committed in our public schools, for they have diverted the proper course of public education.

If we grant that schools have practical aims, it is not by any means admissible that the curriculum should be dictated entirely by the needs of practical life, and yet every plan of school-work is influenced in that direction, because we have created it ourselves, influenced as we are by these same needs of practical life. We only provide for present

needs and arrange accordingly. So each profession demands from our schools that which it considers of practical value in its own line. The curriculum of a public school is thus in danger of becoming a sort of compromise between the several parties, and this is, truly, very unfortunate.

It is wrong to ask of a school to teach only "What is necessary and suitable". We should rather ask, "What is there that educates and develops?"

The second error is more important. We have eight or nine years of schooling at our disposal, and our aim is to instil a certain amount of knowledge, especially of elementary subjects, into the minds of our pupils. One would reasonably suppose that the subject-matter of teaching would be divided between the school years, so that the last one should bring the pupils to the wished for goal. In a country school that would mean obtaining satisfactory results in reading, writing, and arithmetic.

And yet how differently do we act.

The *first* school year already aims at attaining certain results in the above-mentioned subjects: and not heeding the difficulties which beset this, we demand a relative perfection, and endeavour to obtain it in the most monotonous way throughout all classes, in reading, writing, and arithmetic.

In country schools everything else is looked upon as a luxury which, at least, "can do no harm."

Instead of practising during the first school year really elementary subjects, thus awakening and strengthening the children's power of observation and exercising their manual skill, in a word, instead of *preparing* the children for subsequent lessons in reading, writing, and arithmetic, in which they could then make quick progress, we overtax them, even in the early weeks of their school-time, with lessons on these subjects. Class after class, the requirements are increased. Reading, writing, and arithmetic are the main basis and chief duties and aim of

school work, as if these three accomplishments were the "non plus ultra" of present civilisation.

Thus we begin with what can only be attained after long practice. To condemn too strongly such a mode of procedure is impossible. One example may show the absurdity of the practice. A soldier has to be drilled for the profession of arms. He begins by practising marching, gymnastics, endurance, &c., and not until later on is he taught how to use his weapon.

Why can we not treat a child in a similar way? If it be beneficial for a child to acquire a certain amount of knowledge between its seventh and fifteenth years, let us spread the subjects over this period, and cease to hunt for instantaneous results, but see that we keep the chief end in view.

And now let us examine the branches of teaching in order to see where the harm is.

When beginning their school-life, children have hardly completed the first phase of their mental development. Their chief

imagination is relegated to the senses, and the latter govern their intellectual life. The consciousness of self and the work of the mind connected with it are entirely wanting, or only just budding. It is the same with the will. The will is not conscious of its power, and it is expressed only by strong desires. However capable of development the talents may be, signs of which, perhaps, the child has already shown, the teacher should not unreservedly depend on them.

He may count only upon two things :—

1. Mental life, and imagination arising from sense ;

2. Will as shown in the form of desire.

Trusting to these two, the teacher can begin his work.

By this, we do not mean, however, that no other parts of the mental faculties of life are alive and growing. Heart, soul, memory, judgment, expression of will, and resolutions, are all at work everywhere meeting the teacher half-way. But should

the teacher assume that their faculties are equally distributed amongst his pupils, he runs the risk of making himself understood only by those pupils who are mentally more fully developed.

If the master contents himself with stimulating the minds of his pupils, he will see that the conditions which make teaching possible are fulfilled. If a pupil is able to observe, he is then ready to assimilate what is taught him ; if perception produces desire he is ready for tuition. By education we mean developing a child's faculties, following a certain plan according to its talents, a development which, if the child was left to itself, or to its family, it would also undergo, but probably, in a more unequal and fragmentary manner.

These two mental operations, namely, observation and desire, show themselves in a reciprocal re-action. They are in continual correlation with these mental actions, and are ever felt with increasing force. The strongest desire of a child is to occupy its

mind, and its mind thus occupied creates new desires.

According as these desires are checked or unchecked, all emotions, feelings, imagination, judgment, wishes and dislikes take their origin.

Our task is doubtless to *develop* the mental life of children. This is best done by giving them frequent opportunities of occupying their minds and of strengthening their powers of observation. So far we have been constantly told, with a significant look, that *the interest of a child must be awakened*, and that a curriculum of studies according to this or that method should be drawn up, which the children should be compelled to accept and to assimilate. On the other hand, we ourselves demand *that the teacher should take a kindly interest in his pupil.* The latter should not accommodate himself to the teacher, but the teacher should accommodate himself to his pupil. The interest of the child *is* already awakened, but the teacher's *has* to be awakened. A child has

an interest in all things congenial to it, and chiefly in all natural things. This interest is the key to its mental development, for without it all instruction becomes useless and mechanical. The amount of interest which children take in their lessons is the best proof of the efficiency or inefficiency of the teaching given them. We know that when we teach a subject which is above their comprehension, their attention and thoughts wander. But if the teaching is on a level with their mental capacity, if it is within the circle of their world of thought, then the children will pay attention to the words of their teacher.

There is but one way of awakening a child's interest at the beginning of its school life, and that is through its senses. It is only when these are occupied that the child can be kept attentive. Sight, hearing and the sense of touch must chiefly be occupied : there is only one method of doing this in a proper manner, and that is by :—

The Object-lesson.

By this we do not mean the sort of object-lesson which has become stereotyped, but the kind which a child practises when left to itself.

He who knows how to observe will scarcely find a moment in the day when a child will not use its eyes, ears or hands. If we observe the zeal with which a child works, how it is absorbed by every new impression, marking with attention all that it sees, it seems obvious that at school we need only imitate nature itself in a reasonable and methodical manner in order to win a child's interest. But we must not interrupt the course of a child's ideas by keeping it employed any day for six hours or more, for by doing so we are destroying juvenile initiative ; he must have time in which to develop his natural initiative and originality.

Inasmuch as a child is ever using its eyes, ears or hands—indeed, it seems to live by their means—it is, therefore, indisputable that the only real elementary knowledge is that which best assuages a child's constant

thirst for observation. Since, then, to "observe" is the same as to "see," the only true elementary method of teaching is by means of

The Object-lesson.

Looking at the way in which an object lesson is practised, we cannot help remarking how an idea, however excellent in itself, may lead to inconsistencies in practice.

If the aim of an object-lesson is to awaken the senses, it must consequently stimulate them through the objects presented. We know that a written note or the sketch of a musical instrument does not give us the idea of tune, nor does the picture of a pear awaken the perception of taste. A stove does not give the idea of warmth, nor does a stone produce a sense of touch, however beautifully these may be represented in a picture book. In other words, we know that the sound, the heat, the object itself must strike the senses if the latter are to give an idea of reality. We are all agreed as to this, but all at once the friends of

method discover that it is otherwise with the sense of sight, and that a picture is as good, if not indeed better, than the object itself, and that the lesson can be better illustrated graphically than by any other method. They seem to forget completely that a picture cannot produce the perception of space and light in the same measure as the object itself can: or they are afraid that in showing the object itself, the children's attention may not be so much on the alert as when a picture is used.

The first supposition is wrong, for the object itself arouses the greatest attention. A child, when asked if it would rather see a mouse or a picture of one, does not hesitate a moment in declaring which it prefers.

There is more truth in the second assertion that a child's attention may wander: this is the result of a mistake in the method of teaching and of spending too much time over one object. In every-day life, a child seldom remains long over one object, it is accustomed to rapid changes of impression.

Even adults feel a similar need, for it requires great effort to study the same subject for any length of time. School-routine takes no notice of the very great necessity which children feel for rapid change of ideas; it forces the pupils to keep their attention fixed on a single object during a whole lesson. Why? Because the time-table orders it. To secure the close attention of pupils to the subject of instruction requires frequent change of subject-matter.

Which has right on its side at school, the programme or the psychological law? Is it not depressing to see how fundamental psychological development is constantly being injured? Were we to try to fix the attention of beginners and less talented pupils on the same subject only for so long as can be done without compulsion, the interest of the entire class would be secured.

There is yet another defect in the picture as compared with the object itself: a picture occupies the eyes only, while the other senses remain inactive. Does it not seem

unreasonable to speak of a drum or any other musical instrument, or of a stone, or an apple, without letting ear, hand, nose, or mouth take just as active a part as the eye which already occupies a privileged position? It even seems comical to offer these things in a picture form instead of in the reality.

Complaints are always being made that there are not enough suitable objects for teaching. Later on we shall take an opportunity of refuting this statement.

After what has been said above it seems important that the object itself and not its picture should play the chief part in object-lessons. This kind of teaching has also two great advantages for which there are no substitutes :—

1. It endows a child with clear perceptions.

2. It teaches it to express itself readily.

It is unquestionable that a child's education depends, not on the selection or quantity of its perceptions, but on their accuracy. The more correct perceptions are, the better

they can be described verbally, and in this way fluency of speech is improved.

We dare not venture to say how far behind we are, especially in Switzerland, in developing the use of our native tongue. The fact that we find difficulty in expressing ourselves in a fluent language is bred of inaccuracy in observing and describing things. How difficult it is for a country woman to order a piece of furniture unless she can have a model before her: how incapable a farmer is of asking the smith to improve his tools. What stupid assertions regarding a patient are often made to the doctor by a third party! All this comes from want of practice in observing closely and in expressing oneself correctly.

In expressing itself, a child always keeps to the object, thus in speaking, its powers of expression are developed. As, however, new objects never cease to create new impressions, objects should always be taught on the same plan during the whole school course. In this manner, the teaching be-

comes uniform and receives a certain regularity from which we cannot easily depart. Schools often make the mistake of thinking too highly of the faculties of the children. This error of thinking that a child is endowed with a will and reasoning power leads to the mistake of supposing that a pupil has a large store-house of perceptions at command. This mistake is serious; a great number of children do not understand even what is taught. A teacher should make it a rule, never to suppose that an impression exists, if it has not been created, or at least renewed, at school.

Although we are justified in supposing the existence of clear perceptions of household and agricultural implements, of plants, and animals which are daily seen, still, the teacher would do well to create or renew these impressions before proceeding to inculcate new ones.

An object-lesson is more favoured by Nature than any other method of instruction; for, however poor a country may be,

it presents sufficient objects for contemplation ; and enough material will be found, during the entire school-course, to stimulate the attention of the pupils.

When, therefore, the advocates of teaching by pictures assert that Nature, by itself, does not produce sufficient objects, they show a certain deficiency of understanding. On the contrary, the choice is so great that we do not know where to begin, and thus really from laziness, we fall back on pictures. A picture is always at hand, and suggests itself the mode of tuition, while objects have to be sought for. Lessons with real objects require more preparation than those with pictures, and thus the latter are easier to give. This is really the point.

One is also tempted to raise another objection which seems justifiable. Each district of a country only partially furnishes the objects we ought to know ; thus, in treating only our own district, we are apt to think that school-teaching might become partial and imperfect. But, here too, the

degree of our education is decided by the quality and not the quantity of our ideas and perceptions. Not *looking* at things, but *understanding how* to look at them, gives us the advantage in daily life. When the man, who has sharpened his senses by examining a few objects to obtain clear ideas, goes out into the world, his power of observation will be clearer than those of another who has been shown much, but has not become capable of assimilating what he has seen.

Here is an instance. Take the case of the thousands who travel on the Continent, visiting picture galleries, museums, and churches; how little real knowledge of what they have seen do they bring away with them! How much more reliable is the person who has studied one gallery, but that one thoroughly. How clear his perception, and how real his knowledge! How large his field of labour is. If he now endeavours to express in words the impressions he has derived from the various objects he has seen, how rich, how lively and varied

his descriptions will be. Let us now consider our country as a well-furnished museum, worthy of the utmost attention. Let us discourse about its peculiarities, its nature, life, and existence, and we shall not fail to produce clearness of thought and mental development.

The object-lesson falls under two heads :

1. Objects from nature.
2. Objects from the arts and manufactures.

This difference has not always been made, but the distinction is indispensable. By adopting this division the pupil learns how far nature can be pressed into the service of man, and how vast is our field of work.

Both nature and climate call our attention to this. Summer inclines us more to study nature, and winter more to objects of art and manufacture. Thus, our teaching is never in want of new material, and the material never lacks interest. The importance of the above-named division is found in other things also. Natural objects lead to natural history and geography ; all are agreed regarding the former, the latter needs a few remarks.

Up to the present time, we have begun teaching geography combined with history, in the lower classes; a clear proof that neither has been properly taught.

Real geography has nothing in common with *ideal history*, for the field of contemplation cannot be merged ino that of imagination; nevertheless, we continue mixing the two subjects. What is the consequence? Out of both, we have constructed a lifeless nomenclature.

Geography is a kind of natural history of houses, villages, and neighbouring districts, and has nothing more in common with history than an idea with the presentation of it.

The handling of objects of art or manufacture directs attention, at the same time, to the daily life of man. As yet, a beginning has scarcely been made in teaching such subjects, little having been done in this direction. But when we consider that houses, churches, public buildings, workshops, factories, tools, manufactured goods,

&c., are produced by daily labour, we see what a mistake has been made at school by omitting to awaken the children's interest in such objects. We can scarcely find words strong enough to condemn such omission.

Most Swiss are directly or indirectly interested in manufacturing or in manufactured objects in daily use ; nevertheless, our public educational institutions have done nothing towards helping their pupils in practical life.

Does it not seem utterly disregarding the needs of the people to offer fruitless reading, writing, and arithmetic as a compensation ? Their power of observation has never been developed in that direction.

Objects of art and manufacture show how far present civilisation has advanced ; by simple contemplation and discussion of such objects we endow a lesson with special charm. Children derive benefit from learning how furniture, houses, or kitchen utensils, field-implements, are manufactured. Let us only observe the interest

they take in a blacksmith's forge, or how they press round, and are ready to help when anything is being made or repaired.

Thus we come to the conclusion that object-lessons should consist of

1. Natural history ;
2. Geography ;
3. Knowledge of objects of art and manufacture.

Later on we shall revert to these subjects, but, we think, that we have already proved that they form part of the development of children, and that they will readily devote their whole attention to them.

III

ELEMENTARY EXERCISES

A CHILD needs continual *exercise* even more than lessons for its general development.

Mind and body demand an equal share of such exercises, for they are also *elementary*. As we have seen, a child finds "elementary" the whole representation, and not what we, after long labour, have divided into parts which apparently balance. Neither the drawn line, nor the note sung, nor the sound spoken is elementary to a child, but the horse, the song, the expressed thought are so. A child begins its mental work at the point whither capacity and knowledge tend, namely, completeness.

If we wish to give exercise to the body at one time, and to the eyes, ears and hands

at another, we must have the following exercises :

1. For the body : Games and Gymnastics :

2. For the eyes and hands : Drawing and Manual Work.

3. For the ears : Speaking and Singing.

In these exercises, combined with those already mentioned, the curriculum of a primary school reaches its goal. On these subjects, no one can speak of too much or of too little. No one can say that this programme is unnatural or impractical : these subjects are so easy, so elementary that a child has already practised them for itself before going to school. Let the person wait who objects that the favourite subjects of reading, writing and arithmetic are not here mentioned ; the latter will be undertaken in due time, and when the children leave our school they will not know less of them from not having been tortured with them for nine years.

And now for the exercises, for we must explain their important value if we wish

to obtain their inclusion in the school curriculum.

1. *Games and Gymnastics.*

The first and indispensable duty impressed upon a child is: "Thou must grow in mind and body." For growth in body not only food is required but also bodily exercise, and the best exercises are games. These stimulate mind and body, making a child lively and active; they develop the elasticity of the body, and are the favourite pastime of children.

During the early years of childhood, there are two kinds of games: games with objects such as are practised in the Kindergarten, or at home. These games, as hitherto carried on, should be discontinued when children go to school, and drawing and manual training should take their place.

The second kind of games comprise those in which children play together. These are real games and it is only of them that we will speak here.

The value of such games is incalculable. We need only mention, among other things, that they favour the growth of mind and body, that they make children sociable and, by compelling them to observe rules, awaken in them the spirit of self-control.

Hitherto, in the great majority of schools, the children have been left to themselves, but this is a mistake, for games ought to be taught.

Many games, both for boys and girls must be practised until the children have acquired a thorough proficiency in them, and bodily strength, quickness of action, power of conception and exact execution should be continually developed. In England, sport is a national necessity for all classes, and that country may serve as a model in that respect.

Much more time should be devoted to playing than has hitherto been the case. What is the use of children being at school for six long hours? Is it not offending against the laws of health to require them to

sit still on forms for a whole hour? May we not express the wish, at last, that the school may no longer be partly responsible for anæmia, nervous disease, infectious diseases and other results of bodily neglect?

After an interesting lesson has been given, is it not an imperative duty to afford the children an opportunity of renovating their bodily strength instead of compelling them to sit on forms, where, in fact, all the organs of mind and body, including arms, legs and back, are in a state of discomfort bordering on torture?

If we teach the children a few amusing games they all know what to do when they are out of doors. This absence of games is especially deplorable in the country; the very place for them. We can all remember what intense interest we took in these moments of relaxation when we were young, and how after them we came home invigorated, wide-awake, and hungry. Moreover, it is the daily experience of a teacher that his pupils come in from their

play with a renewed interest for their lessons.

Among people in general, even among those who are partially educated, there still exists the old prejudice against out-of-door-games, for playing, especially during school hours, is looked upon as idleness: an erroneous idea which must be eradicated. Let us remind such people that when they were young, they were passionately fond of doing the very thing which they now so strongly condemn. Why should we require our children to sit at school the whole day—a thing so contrary to nature—and pore over subjects the value of which is very problematical.

Our desire is that as much as possible of the time spent at school should be reserved for games. In the warmer part of the year, weather permitting, games should be held out of doors: in unfavourable weather they could be held in sheltered places. We hold that "Reigenspiele,"—a kind of round dance with songs and music—have a very high

educational and æsthetic value. For instance, let us look at a group of children at the school *fête*. Playing in the fresh air, adorned with flowers, bathed in sunshine, the children show by their happy faces how much they are enjoying the games and songs. Who could find a more charming picture to look at?

For children's games let the time be "made" and not "found"; games which require a long time should be held in the afternoon and evening, shorter ones can take place between the lessons. Hours spent at play are not wasted, they lay a good foundation for mental and bodily vigour, they promote health and prepare for us much happiness.

We cannot so highly praise gymnastics for the younger classes in primary schools. Games come natural to children, while gymnastics do not. There are many surprises in games, whereas gymnastics are looked upon as work: in the former, the children can do more as they like, whereas

with the latter the initiative belongs to the master. Games are a national affair, but gymnastics are a remnant of the old athletic contests and have always been, more or less, artistic performances ; they are a necessity for young men who wish to display their strength, while games, like round dances (Reigenspiele), are more adapted to the period of childhood. Naturally, we do not mean that gymnastics should be altogether abolished from public schools.

It would be very easy to find a method by which games would later on lead up to gymnastics, so that during the latter years spent at a secondary school gymnastics would predominate. We might expect most valuable results from the adoption of such a plan.

Athletic sports for boys and gymnastic games for girls keep the former from visiting public-houses, from card-playing, and the latter from desiring mere society pleasures.

For several reasons, the way in which gymnastics are taught at school is not to be

commended. In the first place, as already mentioned, the pupils at a primary school should play, those at a secondary school may, later on, cultivate gymnastics which, when exercised systematically, belong to the age when the pupils have left school.

When discussing out-of-door games and gymnastics we ought to refer to two matters. The first is not new, and concerns school walks. Both in town and country there is still much prejudice against walks. These should not be regarded as encouraging idleness, for they both promote health and increase the powers of observation. When children are taking a walk we can discover to what extent they are able to see, hear, and observe. During a walk the master finds numerous opportunities of interesting and instructing his class, while the children are able to see, hear, and discover. Let walks then be taken as often as possible: children can never get too much fresh air and sunshine. In cities and towns the schoolrooms are often unhealthy and the

school-houses badly situated: it is a boon, therefore, for children living under such conditions to spend half a day in a forest, where tents, as a shelter for lessons, prove most useful. Such a plan will certainly spread in the near future. It would be very desirable for schools to possess tents so that lessons might be given in the open air: nothing can be more healthy than learning, working, and playing when the pupils are thus sheltered from rain, dust or heat.

Games, gymnastics, and walks are the chief requirements for school hygiene. The natural health-seeking feelings of a child are satisfied with such simple things as food, water, and sunlight, which alone promote its growth and development: and in the school work of the future much more attention will have to be given to these matters than has hitherto been the case. For this reason we welcome medical advisers for schools. Doctors should be the allies of teachers. They are the best persons

to advise on rational food and clothing for children ; they can help to lessen over-work and they can order, as here urged, that the children be as much as possible in the open air, for they can show how crowded and over-heated rooms tend to spread infectious diseases among them. In this way, the use of air, light and water would receive proper attention. Medical advice regarding the erection of school buildings, ventilation and heating apparatus is most valuable. All schools should be visited by a doctor, who would report concerning the sanitary condition of the children and suggest any measures which ought to be taken. If home, school and medical experience worked together, we feel sure that the result would, in the future, produce a healthy generation.

2. *Drawing and Manual Work.*

The best subjects with which to exercise eyes and hands are drawing and manual work. Drawing is innate in a child, and forms one of its first occupations : nothing

gives it greater pleasure than a box of colours and some paper, while if these are not available, it tries to find a pencil, a piece of chalk or even a piece of coal, wherewith to immortalise itself in books, almanacks or newspapers. Formerly this tendency in children was regarded as a destructive propensity, which ought to be suppressed; now, however, the educationist calls it "plastic faculty," and tries to develop it, a development which can be obtained by drawing lessons. Until lately, only few persons have fully appreciated the importance of these lessons as a branch of school work; most people think it a luxury, to which we must sacrifice an hour every now and then simply for the sake of fashion. But if we regard this subject from a practical point of view only, we find it is an urgent necessity, especially for a workman, who generally finishes his education at a primary school. In manufacturing places 70 per cent. of the population can make use of drawing learnt at school. In view of this fact, it is extra-

ordinary that for so long only secondary importance has been attached to drawing, and that the hand of children has only been trained by writing, which is not so useful to a workman as drawing, for it must be noted that a person who draws well soon learns to write, but not *vice versa*.

Drawing means making a picture of living objects and things, the hand reproduces what the eye sees. *Drawing is speaking in pictures*, and thus we see how important a picture is. It cannot find its place in object-lessons, for in the latter the object itself is always superior to the picture : in drawing, the picture receives its true importance, for making one requires the exercise of attention, plastic faculty and imagination. The reason why we cannot place the picture on the same level as the object is purely psychological. During object-lessons the perception is formed, or renewed, the mind is chiefly *productive ;* but in drawing, in which objects have to be reproduced, the mind is chiefly *reproductive*. Nowhere else can a clearer contrast be found.

Great changes are taking place with regard to drawing-lessons. The old school held that skill in drawing must be imparted to children, while the new method demands that it should be *evolved* from the natural talent of the pupil. The old method took the initiative from the teacher, the new one takes it from the pupil, the former working from habit, the latter from careful experiments.

Here, we may notice that children with manual talent, when not under external influence, begin by drawing objects, with which high art finishes, viz., men and animals; what we have already emphasised, we thus find continually verified here. Neither strokes nor lines, nor their combination—simple as they may seem to us—are *elementary* to a child, but it is the whole thing, namely, the house, the animal, the man.

The plastic faculty, which shows itself in drawing, is both receptive and reproductive, hence both sides of it must be practised. In numerous experiments made with children from four to fourteen years of age, special attention has been paid to the manner in

which they portrayed a man. The degrees of development are very interesting, as they are everywhere identical. The six grades which have been examined show the following results :

1. First of all, the sketch is chiefly the child's abstract penning, representing a symbol ; a sign of idea.

2. In the next grade the delineation shows some detail.

3. The young draughtsman makes some attempt at sketching what he sees, but the mere outline is still perceptible.

4. Form begins to prevail, the mere outline disappearing gradually.

5. The portrayal is of two dimensions. The mere outline has disappeared.

6. The child discovers the form of extension and tries to represent the three dimensions.

The results obtained from these observations may well help to reform the whole method of teaching drawing. The teacher finds in these drawing-lessons a most interesting field for experiment, while they are

the central point of the child's plastic faculty: the pupil draws intuitively, the teacher watching attentively, and only interfering when it is really necessary. Of course a child does not draw only to suit the requirements of an examination, but according to its capabilities. The sketch it makes is only the expression of its observations, not yet of its skill, for it is not able to portray shapes, and thus its drawing only expresses its ideas. Only later on will a capacity for drawing form be found. Thus the plainest sketch has an interest for a teacher, as it is the expression of a pupil's mental work. In these psychological drawing-lessons only paper and pencil (or pen and ink) should be used; not a slate, for the number of sketches shows the course of the child's development. From these considerations it is clear that drawing should be one of the principal subjects taught in all primary schools.

Some time ago, when we expressed a wish that manual work should be enforced in

all public schools, an experienced teacher remarked that such hopes were *sanguine.* To-day we read in an excellent treatise that primary schools should possess the following accessories: laboratories, school-kitchens, school-gardens, aquaria, workshops for work in wood, metal, &c., so that the plastic faculty of the pupils may be occupied. Thus we see that, while school systems have remained stationary, ideas have advanced.

Up to the present time ordinary school work has given no training to the hand—that organ of work—except that derived from writing and a few drawing-lessons. Private experiments in cultivating manual skill, though they have been successful, have not penetrated into public schools, and so can hardly be taken into account. Hitherto such manual work has been assigned to kindergarten schools and playgrounds, for the curriculum of a public school has no room left for manual training. Yet by whom are manufactures (in the widest

sense) produced? Almost exclusively by people who have only attended primary schools, where they had only to write on a slate or in a copy-book, and to read. Such knowledge is of very little use to the working classes. Would it not have been better for them to have exercised their hands by learning drawing? *

Here, too, we should consider the natural bent of children, and not their practical requirements and their irresistible desire to "be up and doing." We admire the assiduity and perseverance which is shown by some children, or the imagination and powers of invention shown by others; why, then, not guide aright those who show an

* In manual training girls have hitherto been privileged, for they receive instruction in needlework, while boys have no corresponding subject; these practical exercises, however, for girls are not yet fully appreciated. Needlework develops the sense of cleanliness, exactitude and perseverance more than anything else; but care should be exercised not to overdo it. Sitting long in a stooping position and over-straining of the eyes can be avoided by making the lessons of suitable length and frequency, while no home-work should be given in sewing. If a wise method were followed, such teaching would have a permanent value.

intense desire for work, and thus open before them the avenues of a prosperous future ?

When we ask that manual work should be included in the school curriculum, we speak in the interest of all. We do not mean that a primary school should prepare its pupils for mechanical work, for it has neither time nor means to achieve this ; but children ought to be occupied according to their inclinations, and their hands ought to be trained. Later on we shall show how easy it is to find time for these exercises: here we only wish to give a few more hints.

Manual work in a primary school can easily start from work done at the Kindergarten, or in early childhood. Wood, sand, clay, stones, paper, and cardboard can always supply the materials, while a few tools can easily be found. As time goes on, school authorities will be willing to offer suitable rooms if a gymnasium-room is not available. As with everything else, time, money, and patience are required to achieve success.

Such lessons in manual skill offer the

greatest educational advantages, only a few of which need here be mentioned.

In the first place, it is easy to find suitable manual work for boys and girls, so that no one need be neglected. The particular bent of children can be fully taken into consideration, and they should be allowed to choose the work which may seem likely to be of subsequent practical utility to them. It is also quite certain that discipline is most easily maintained during lessons devoted to drawing and manual work. There are parents who do not thoroughly understand how to occupy their children at home; there are children, also, who do not go home for dinner on account of the distance. In both cases manual work would be of great service in employing time which might otherwise hang heavily. Finally, as the wish that manual work should be taught in schools seems now very general and popular, a law should be passed to give such instruction a status among other school subjects.

3. *The Mother-Tongue and Singing.*

Besides drawing and manual work, there are two other important branches of study which would occupy the plastic power of children, viz., speaking and singing. The intermediary for these two mental gifts is chiefly the ear: if a child is born deaf, it grows up dumb as well; and if the ear is undeveloped or weak, the ability to speak likewise suffers. If a child's sense of hearing is acute, it is very susceptible to musical sounds, and can easily imitate the sounds it hears. When compared with the other senses, the ear has the immense advantage of being able to withstand all outside influences. The eye, the tongue, and the nose are soon affected by overstraining; the eye, for instance, suffers from the effect of modern artificial light. But this is not so with the ear; in studying languages or music, the hearing power becomes more acute by practice. Nature seems to have given this strength to the ear to compensate for the

delicacy of the other senses, and education should take note of this. For instance, in many classes, we should recommend preserving the pupils' eyes from overstrain by giving more work to the organs of speech and hearing.

This is true especially in teaching, for the ear ought to serve more as intermediary, a plan which, hitherto, has not been much followed. In most cases, school-work overstrains the eye while neglecting the ear. We should like to apply this fact to the study of languages.

A child on entering school possesses a great number of perceptions, but a limited vocabulary. It names many things, qualities, actions, &c., but the correctness of its descriptions is often very doubtful. There is one thing connected with its vocal expression, namely, all that a truthful child says has a *positive* or *real* basis ; it adheres to that which is perceived by the senses. As soon as we talk to a child about things, qualities, actions, &c., which it has not

heard of, our language becomes incomprehensible to it. Consequently, when a child enters school, our first task is to enrich its stock of perceptions and words. This can only be done properly by *object-lessons*. From this point it is easy to state the proper ratio which practical teaching should bear to linguistic instruction. If real practical instruction should aim at giving correct perceptions, then it is the work of linguistic instruction to form correct grammatical expressions, and continue them with the perceptions; both working reciprocally. But one thing is certain, knowledge of the object should precede the ability to designate it. It is less prejudicial to a child to possess perceptions which it cannot express in words than to use words of which it does not know the import. Yet the latter fault is to be met with everywhere, daily. There are a great many teachers who consider vocabulary as being independent material, with which one can practise exercises without troubling about their contents, and the old method of

linguistic instruction forces them, especially in primary schools, to follow the usual routine. In this way the linguistic lessons asssume a hybrid form, which cannot be too severely condemned. Leaving out of consideration the higher classes, let us glance through the school booklets of a second or third class. We find in them many things entirely foreign to the perceptions of a child. How much more is this the case with those books in which instruction in "modern" subjects, such as geography and history, is separated from linguistic teaching? In most cases, the instruction lacks illustration by real objects. *Objects are spoken about which are not perceived, while objects which are perceived are never discussed.* Herein lies the capital defect of our school training! We refer to mere explanations of names, which produce only a half-education.* This is a mistake which a teacher should energetically combat. In the junior class of a primary school it should be

* Compare H. St. Chamberlain's "Foundations," 4th edition, p. 761.

his aim to *increase and correct the perceptions of his pupils, and, in connection with these, to enrich and correct their stock of words.*

The best exercise for obtaining this result is to be found in speaking about visible things. The important point is, not so much that we should talk about certain things, as that our ideas should be precise and exact: hence the chief aim should be the quality and not the quantity, of ideas instilled. By this we do not mean that nothing but visible objects should be talked about at school, but that children should be taught to observe accurately and to express themselves correctly.

The elementary form in which a child expresses itself is derived from its mental conviction, and on every new perception it is apt to form a judgment. This may be observed in quite young children who have not yet reached school age. One has only to take them for a walk or to show them new objects to become more fully aware of this fact, for we see at once that

their manner of judging of things shows understanding and capacity for judgment. But a child takes neither interest nor pleasure in analysing a sentence into words, or a word into sounds. Nevertheless, at its very entrance into school life, a child has to begin by separating vowels from consonants, as a preparation for learning to read and write. Every teacher knows that these exercises are very distasteful to his pupils, for they can never be done without difficulty, but he is powerless to stand against a requirement which demands that at the end of the first school year a certain proficiency in reading and writing shall have been attained.

It is not then to be wondered at that we condemn this premature study of analysing of words with sounds, and assign it to the work of a higher class, to which we will give our attention later on.

If we convert the grammatical exercises into *conversational* ones, we easily avoid another mistake of frequent occurrence in schools. In teaching reading and writing at

the very beginning of the school course, the eyes (and hands) of the pupils are occupied, but the ears are neglected—a mistake which produces baneful results from first to last. If a tale or description is read aloud, the ears of each child alone being at work, the greater part of the class is not able to follow. The pupils must read it for themselves with their own eyes in order to understand it. We become aware of this fact every day in teaching foreign languages. Many pupils are able to read and translate fairly well, but if the book be closed they fail to understand the simplest sentence. The cause of this incongruity is obvious to all. In our grammatical exercises, the hearing powers of the pupils have been neglected.* If we begin with conversational exercises, there is no doubt that the hearing power of the children will rapidly become more acute.

When we come to consider the subject-matter of language, we shall find that it concerns :

* R. Hildebrand says: "Let all language teaching be oral first."

1. description; or,
2. narrative.

We see, therefore, at once that throughout all instruction on natural or local objects, if language is to be practised and enriched, then use must be made of description and narrative. These exercises, however, should not always deal with the same kind of object. If we have begun with simple exercises, giving descriptions of visible things, more difficult lessons should follow when the arts of reading and writing have been mastered.

We should first secure a correct diction in reading and writing; later on independent exercises in grammatical forms may follow: in this way the difference between the practical knowledge of the language and its more scientific treatment is observed.

Singing is the æsthetical expression of language: before going to school, while still at home, or at the kindergarten, a child has often been taught to sing little songs. The same should be done at school, and

children ought to be allowed to sing frequently their favourite songs. To express their feelings by singing is an *elementary* necessity for children. The way in which singing should be taught at school, is, for the teacher to sing, and then have the song repeated by the children: only later on should a child sing to tunes played on an instrument: in the upper classes the system of notes may be taught, so that by the end of his school life a pupil has learnt to read music.

It is much easier for a child to learn to sing by ear than from note.

However, the way in which the words of a song are often treated cannot be too severely condemned. The teacher too often assumes that the pupils understand the words, and does not take the trouble to explain them: thus the class repeats them mechanically.

The words are often taken from the best lyric poetry: they should be read aloud, explained and repeated, so that they may help to lead the minds of the children up to

the melody. There is no doubt that, if we recite the words of a well-known song, carefully, children take much more interest in the melody, and it becomes much easier for them to learn to sing. If the words are learnt by heart the melody is soon acquired also, and thus the song attains more the character of a national song (*Volkslied*). A national song is not only one dating from the fifteenth century, but is one which is adopted and sung by the people. A song is the overflowing expression of sentiment, and it must come from the heart if it is to appeal to the heart. In the morning, at the beginning of school work, in the evening before going home, on special occasions even during school hours, young people should sing.

Unfortunately, provision has been made for the giving of extra singing lessons late in the day, and what is the result? One child has just had a lesson dictated to it, another has just been reprimanded, a third has just received an imposition: then after

this the order is given: "Take your places for singing." The children's voices are tired and without any joyful expression, so the teacher gets angry and threatens: the voices become still more out of tune, and as a result the teacher punishes. Take another instance. The drilling for examination in singing begins, and difficult songs only calculated for effect are sung: here, too, little real progress is made. The examination passes off like a small concert, but as soon as it is over the books are shut and the songs forgotten. At the present time where do we find girls and boys sitting in front of a farmhouse, or under the cottage eaves, and singing in chorus songs known to all? In this branch of education, more than in any other, we see what a mistake has been made in separating boys and girls at school: for it is just when boys and girls are singing together that they are seen to the best advantage, the high, clear notes of the girls making a charming contrast with the strong, distinct alto of the boys. We can still remember

our delight when young, when boys and girls joined together in the singing.

This perfunctory way of giving lessons in singing may well be abolished: for when a teacher does not understand how to instil a love of singing into his pupils he has lost one of the best means of winning their affection.

IV

OTHER BRANCHES OF ELEMENTARY EDUCATION

We have already shown that a knowledge of Natural History, Geography and Articles of Manufacture should be acquired by means of object-lessons, likewise that the teaching of these branches is highly necessary for the mental development of children : hence we come to the conclusion that by means of such lessons, and of the narrative system, elementary knowledge is most easily attained. We have also explained what kind of physical exercises, benefiting mind and body, should accompany such teaching. After having shown the psychological necessity and importance of these branches, we wish now to examine them from another standpoint.

We do not here intend to give an exact or methodical description of the manner in which this teaching should be imparted. In every case experience and circumstances will prove the best advisers : it is better not to follow any one method too closely, but rather to observe what is most beneficial for the children.

For many reasons we must condemn the way in which " Modern " subjects (such as Geography and Natural History) are taught in most schools. Instruction in these branches has had such poor results and caused so little joy and interest to the pupils that we feel inclined to omit them altogether from the curriculum of instruction in primary schools.

We know that the affinity of our own nature to the outside world is most important : there is no bodily sense or function which is not strengthened and enlivened by light, air and food : at no time and in no place can we escape from the influence of these. Nature is the very essence of our

being. Yet something else arouses our interest in Nature : we can only make the outer world subservient to ourselves by strengthening mind and body by attention, observation and experience ; in fact, we can only govern Nature by making it a part of ourselves. So necessary is it then for us to study our position with regard to it that we can never begin to learn from it too early, too accurately or too much.

The instruction which has been given hitherto in primary schools regarding Nature has been deficient in every respect, and it is now time to reform it, for the teaching of "modern" subjects should form part of the ordinary elementary work and begin in the earliest years of school life. Such teaching should enrich our language, and, by being conducted in a way interesting to children, make them daily more attentive to and interested in Nature — the all-embracing mother whose guidance in life we can never safely forego.

School schemes of work as they now exist

contain three different subjects: natural history, geography and history: both the name and the method or instruction are wrong. We begin teaching these subjects to pupils nine years old, and in all these cases the results are of doubtful value.

This is not surprising when we find that natural history and geography, two "real" and concrete subjects, are taught on the same plan and with the same objects as history, which is quite "abstract" and connected with ideas. It would seem natural, indeed, that the two former subjects should be taught to children of all ages; but history, taken in the strict sense of the word, does not really belong to the work of a primary school. If more study had been devoted to developing the children's minds the excessive desire for method would not have exerted such a baneful influence, and primary schools would not need, as they do now, reform in this respect as well.

We feel certain that these three subjects are not connected with one another, and

that the mental development of the children to whom they are taught is most varied ; still we will speak of them here to emphasise the contrast between them, and to show the difference with which they ought to be treated.

1. Concrete Subjects.

a. Natural History.

A child, on entering school in its seventh year, brings with it awakened senses, keen interest and numerous perceptions. By means of object-lessons we begin to draw its attention to Nature, by—

1. Natural objects.
2. Objects of art or manufacture.

An oak and a piece of furniture, iron ore and a key, a lump of clay and a brick, wool and cloth, corn and bread—these in our thoughts are closely connected with each other, but to a child they are quite different objects : consequently we cannot begin by proving to a child the relations existing between them, but we must treat them as they are. In short, we should make no

difference in the way in which we treat natural objects or those relating to art.

1. We should first ascertain if the children have already seen the object in question.

2. We should try and discover what the children already know about it.

3. We should discuss and describe the object in front of us.

4. We should repeat the knowledge thus acquired.

It is therefore evident that the instruction should, in the first stage of the child's development, be *descriptive*, for its aim is as follows :

1. To train the senses and powers of attention.

2. To create and renew a child's perceptions.

3. To develop and increase its capacity for expressing itself.

On reaching the second stage, instruction should be of a much more advanced kind.

For instance, in describing a stone we show its use for building or ornamental

purposes: after discussing a plant we show its usefulness as wood, food, or medicine: when speaking of a bird, we point out how it supplies us with feathers and eggs, serves as an article of food, or helps to destroy noxious insects.

In this way the pupils learn how things are connected with each other, and the teaching requires a more *causative* nature.

Children find especial pleasure in making experiments: every active boy is a sort of Robinson Crusoe—a discoverer and explorer. In the different branches of physics we can treat of things which children have seen daily but hitherto not fully understood: we can show these things by experiments, and thus make them much more intelligible. There is no lack of material in these branches, and it should not be difficult to advance from the simple to the more complex.

It has been urged that children reared in a town do not come in contact with Nature as much as those brought up in the country.

This is only partly true. Often country boys and girls have no guide to explain Nature to them; on the other hand, a town possesses a museum, zoological gardens, sometimes an aviary, or a small lake for water-fowl; thus a large number of animals are collected together; also in a town there are sure to be people who take an interest in those things, and are willing to instruct young people concerning them. But the greatest advantage from a town is to be derived from the many objects of art and manufacture constantly exhibited in the shop-windows, objects which boys and girls regard and contemplate with wondering eyes. This advantage forms a vast and almost uncultivated ground of practical instruction.

The uses to which raw material can be put, the importance of manual work, the world of art created by industry and intelligence—all these things can be made intelligible to a child.

One word more regarding the teaching of natural history; this subject, if treated in a

practical way, can be turned to the greatest advantage. Pupils should be told to study Nature most attentively, from the earliest days of spring, and to watch all that is happening out of doors. They can be asked such questions as: Which plants and trees have you seen bursting into leaf? Which birds have returned from the South, and where are they building their nests? Which animals are showing themselves in the fields and woods?

The children should also be allowed to bring plants to school. The plant should be talked about in school or play-time, and instruction already given about it is repeated. It should, when possible, be pressed. A small herbarium can be constructed, while similar collections can be made of other objects: different sorts of wood, earth, and stones, insects, seeds.

The trouble caused to an experienced teacher and industrious pupils by such new things is very small when compared to the amount of pleasure derived from such collec-

tions. Cupboards will afford ample room for all these objects, which during the winter months would provide excellent materials for repetition, and for further lectures, to say nothing of the fact that they are far better for the purpose than mere pictures.

Throughout the year the children should take walks as often as possible. Accustom them to weekly excursions, and the discipline will become easier. If we are in charge of two classes out of doors at the same time, a lesson can be given to one, whilst the other is playing a few steps further off. An afternoon employed in this way is worth much more than one spent in the confinement of a close room. Many of us have still in mind the fine summer days spent at school, when we looked with longing eyes out of the window and shouted with joy when we were released from school at eleven or four o'clock. At once all our troubles, warnings and punishments of the moment before were forgotten. Can any one be so simple as to imagine that those lessons had any great

value? On the other hand, how happy, fresh and well we returned if we took a walk in the forest or over the hill! Nature is our greatest school, therefore, notwithstanding the wishes of pedants, let us often take our pupils out into the open air with Nature, instead of keeping them shut up within the four walls of the class-room, making them old in body and mind.

b. Geography.

It is always a rule with good teachers to start with simple things already known, and then proceed to those which are more complicated or unknown. This rule can be well justified in teaching geography. The home, the village, the surrounding country, even the horizon, are known more or less to a child as it sees them every day: geography lessons therefore should begin with the neighbourhood inhabited by the pupils and should be entirely of a *descriptive* nature, in fact be made a kind of object-lesson, and if they are treated in this way they will yield most useful results. Physical geography has

no connection with history. We know that a child produces whole groups of perceptions more often than it does perceptions of single objects: in a geography lesson groups can be clearly put before it. In studying more closely its own neighbourhood a child can commence that analytical work which is so congenial to its mind. To prove the truth of this we have but to go for a walk with a little child four or five years old: it will incessantly ask questions and make remarks about everything it sees.

Geography is a pleasure to the pupils if it is cleverly taught: but to begin at once with lectures and with a small map that tries the eyes to read is simply a travesty of all geography. Some teachers try to force into the minds of children only twelve years old the whole description of their native country. Europe forms the subject for the next school-year; the pupils are expected to give the names of mountains, rivers, villages, and towns, and to be able to point these out on the map. Such teaching really has nothing to do with

geography. The consequence is that the pupils can repeat empty names connected with Austria, Germany, Spain, &c., but do not know the places in the vicinity of their own village which they see from the windows of their homes. Our idea of reformed teaching in geography is quite different.

During the first school-year the teacher should treat only of the place and neighbourhood inhabited by his pupils, and of things they see, the place itself, the foot-paths through the fields, the streets, the railway, &c. Then he should describe the stream or river, pond or lake; the plain or slope, hill or mountain, ravine or valley. When the teacher has imparted to his pupils geographical notions about place and neighbourhood, and they understand the names connected with these, he should often repeat his instruction, and only when this has been well done should he proceed to further teaching combined with exercises.

We should try to fix these things by signs: a foot-path or road can be marked by

a line, a house by a point, a castle by a triangle, a church by a cross, a village by a circle. We trace by lines the course of roads, rivers, and railways, hills and mountains. This teaching should be practised until the pupils are able to name the things and make a sketch of the district.

In the interval writing may have advanced far enough to enable the pupils to describe by letter what they have seen. Then a map may be taken, and from it the children can see in detail how the land is formed with its rivers and hills, how the population is located, &c. Only in this last stage of instruction should "map-reading" begin. It is hardly necessary to say that they should learn to find the place where they live, then their own neighbourhood, the other parts of their country, the Continent in general.

Thus the pupils should finish in their last school year with what they have hitherto commenced, viz., the proper use of a map. If then, in after life, a person leaves his own neighbourhood, he will easily find his way,

helped by a map or his own sense, for his eyes and memory have been well trained in geography. In the present day, photography has become a great help to geography; photographs and panoramas of beautiful scenery (including mountain ranges and passes) can be bought at a moderate price: this is especially the case in Switzerland: naturally all such photographs are not perfect, but many are good, and can be successfully used at school. If a neighbourhood is suitable—most parts of the country offer at least advantageous groups—the more intelligent pupils may be shown how to make a relief map from clay; to do so would give more help in understanding geography than to learn a large number of names of mountains, rivers and towns, in various parts of the Continent.

This new plan for teaching geography would be much as follows:

1. Describing the pupils' native place.
2. Giving names to the things seen.
3. Fixing the geographical signs.

4. Sketching simply the native place and its neighbourhood.

5. Studying the same on the map and examining corresponding photographs.

6. Studying other parts of the map or relief.

7. Reading the map.

2. Abstract Subjects.

a. Narrative.

Ever since greater attention has been given to education many authors have undertaken the difficult, but valuable work, of writing books for children, both in prose and verse: anecdotes, stories, fairy tales, &c., form the contents of these books.

A child's interest in stories is *inborn*. We can still remember how we used to forget everything else, leave our play, our supper, to listen to the stories told us by our mother. A child will always retain this interest in narratives. As long as the story is well told the youthful listener will always ask, "What

next?" Such a remark is the best criticism both of the tale and of the narrator. Heart, soul, imagination, and memory are aroused: in fact, a story is as necessary to a child's mind as playing is for its body. A good story abounds in rapid changes of perception, interesting contrasts, unexpected turns, and quick actions. Man is portrayed with his thoughts and actions—topics which are the chief objects of reflection. Consequently, the nature of tales is abstract, for their aim at first is in thought and action, and not in external occurrences.

If a tale is to be intelligible, it must be suited to the experiences of its youthful hearers, affecting their feelings and imagination. Only the best tales should be narrated to children; for in this way, without their noticing it, we can influence their wills and hearts for much good.

In the junior classes of a school it is best to speak extempore. The teacher should possess a store of suitable tales, for he must relate them in a way which is suited to

the minds of his pupils. The attention paid by the latter will show him whether he is accomplishing his work in a satisfactory manner or the reverse. Thus the ear of each child is developed, its imagination is awakened, and its attention kept undivided. It is a bad plan to have a story first *read* by the pupils, because thus the attention is divided between eye and ear, the imagination is thwarted and memory neglected. If a tale is first read by the class, and questions concerning it are put, it will be seen either that the tale has not been properly fixed on the memory of the children, or that it has not been understood. Another time, let the tale be told extempore, and then the result will be successful.

There is also another reason why relating a tale makes more impression on the hearers than reading it. It is easy to see that a child's eyes look at the lips, eyes, gestures and expressions of the narrator, and that it notices the modulations of his voice : many of the purest emotions are thus transferred

from mind to mind. Thus we see that the word which is read can never be compared with that which is spoken.

We suggest therefore the following plan: First let the story be related; then read and repeated; after this, the children may read it for themselves. This method demands years for development.

It is more difficult for a country schoolmaster to cultivate story-telling than for one in a town. Children reared in a town come more in contact with people and things, and so they hear more: they also speak more, and thus become more communicative. The country schoolmaster, working under less advantageous conditions, finds it more difficult to choose suitable tales.

People often complain that the memory of children is little developed at school, in spite of the large amount of time devoted to learning by heart. The cause of this shortcoming lies chiefly in the fact that in reading and in vocal exercises the eye is too much occupied, the ear too little.

There is another deficiency in our tales for children : a great number of the narratives have a moral tendency, the tale being arranged so as to point it out as clearly as possible, even at the sacrifice of all probability and epic beauty : these tales have not been " felt," they have been " manufactured " and are uninteresting to children. Moralising does not belong to school work : it produces levity and hypocrisy. The truths of moral and religious life contained in stories must appeal to children by their simplicity and directness : the teacher must make it his duty to relate good and true stories, touching the hearts and imagination of his pupils, he must enter into their nature and narrate accordingly.

b. History.

National history is frequently included in the school curriculum to cultivate, it is said, in the minds of the scholars, a love for their native country.

We are convinced that this is a great mistake. In many instances the teacher

himself has had no opportunity of studying history thoroughly, and in any case children do not understand the development of a state, nor have they, as a rule, any historical tendencies. Moreover we must call attention to another mistake.

We have compared the historical portions of English, French, German, Italian and Swiss school-books. They all agree in this respect: they all praise the virtues and glorious deeds of their forefathers, while accentuating the vices and shortcomings of the enemy. English school-books build up a glorious history of England to the detriment of the French, and *vice-versa*. In Germany we find the same tendency; and among us Swiss, who has not learned, when a boy, to regard the Austrians as wanton, cruel and haughty intruders?

We fear that this method of teaching history gives rise to the prejudice against foreigners which is still prevalent among our people.

If we regard love for one's country as a

sense of community, of right and duty, as a feeling which creates willingness to make sacrifices, we must own that our children are far from being able to understand this aim ; indeed, at their age it would be impossible for them to do so. It would be necessary to find a very remarkable teacher in history who could arouse such sentiments among younger children : the history of the past is a subject which only persons of ripe intelligence can understand.

As in other matters, so in teaching history, we are too apt to impart to children ideas of older people : as some of us take an interest in local, national or universal history, we feel duty bound to force these subjects on young children, and that in a very reprehensible manner, and we begin with the summary. We give the manual to grammar schools, the *vade mecum* to the secondary classes, but the summary to the primary schools. Thus we give the concise account to the younger pupils, but the detailed account to the older ones. On one side we

concentrate the material, on the other we expand it: in primary schools we presuppose a knowledge, and only later on do we deem it necessary to state details.

Thus we follow quite a wrong principle. We speak to children twelve years old about the Romans and Helvetians, the early days of Christianity, the Middle Ages, about a duke, an abbot, &c.; but these are topics which older scholars, and not pupils of a primary school, can well understand. But there is a still greater mistake. We suppose, quite wrongly, that a knowledge of local hisory is necessary for children; the following example will, we think, show the mistake of so doing.

Let us collect a number of school children all of the same age, equally educated and gifted but from different parts, for instance, from Pomerania, Lower Austria, Wurtemberg, German Switzerland, &c., and let them repeat what they know of local history. They would appear to each other like people from different worlds, entire strangers. But only

let them play, sing, draw, or work, together, they will soon understand each other, and feel like friends who have always lived together. We shall then see which is the dreary waste, which the green pasture for them. They can only appreciate and understand one period, and that is *the present.* In order to interest children, we must commence with descriptions of daily life and actions. After that only can we train them by their own experience to understand the past.

When speaking of object-lessons, we showed how necessary and desirable it was to explain objects of art and manufacture. We can describe their manufacture, use, and practical utility. We can speak about old buildings, streets, instruments, books, even ornaments. In alluding to the past, collections of antiquities arouse ideas as to the conditions and organisations of former days. It is obvious that we cannot here refer to final instruction, but only wish to mention object-lessons which awaken a child's interest in the present and the past.

Every place is well supplied with material for this kind of tuition. Ancient buildings or ruins, antique garments and implements may serve as a starting-point. First, we may compare them with modern things of a similar nature ; thus, in order to instil into a child's mind the first notions of history, we can show it how things have altered. By-and-by we can speak of former times, of ancient nations and people, of their lives, manners and habits. This mode of teaching is much more intelligible than speaking of Cæsar and Divico, of the invasion of the Barbarians, of the Romans, of Charlemagne, of emperors, of dukes, and abbots. In many cases it would be difficult to say whether such topics are more tedious to teacher or pupil.

But if we make use of the facts of the present to explain those of the past, we awaken a child's interest in the work and progress of mankind, thus helping it to appreciate and understand the actual occurrences of daily life.

Here description, narrative and imagination are closely connected; later on may follow exercises founded on stories, short biographies, historical pictures, descriptions of events, &c. This method may be practised with the higher classes of a primary school.

Then, too, the teacher may use historical tales, suitable for children, and taken from national or general history, provided only that they relate noble deeds and virtuous actions in a simple manner. Only in this way does the teaching of history become the highest form of intellectual work, leading the pupils, as it does, to real thinking, by showing them men reflecting and acting.

V

READING, WRITING AND ARITHMETIC

When attendance at the primary schools was made compulsory, their practical aims were fixed. It was believed that reading, writing and arithmetic were of universal importance, so that these subjects were considered as the foundations of all education. They were not only the chief subjects of teaching, but it also became the highest aim of each school to obtain the greatest possible skill in them. Other subjects were included in the school curriculum only gradually and after some opposition. The great importance of reading, writing, and arithmetic was generally admitted, so that they were simply called *Elementary Subjects*. This title,

however, was given to them on account of their practical usefulness; but, as so often happens, the name changed its meaning, and the term "Elementary Subjects" now generally denotes the rudiments of knowledge. The results of this "elementary" teaching have, so far, been unsatisfactory. Pupils who have completed their seventh or eighth school year have apparently reached a satisfactory standard, but a few years after they have left school their knowledge of these three subjects diminishes. Not in a single case do we find the results which we ought to expect after so many years of learning. On the other hand, we know from experience that we endeavour to pursue the study of subjects which we have learned with interest, and to cultivate them in after life. Consequently, interest is wanting in such pupils when they leave school; for as soon as they can, they throw away pen, copy-book, arithmetic, &c. This mistake must be owing to the subject, for what is congenial to the mind and spirit

of a child arouses its interest. Teaching and learning do not stand in the right relation to each other, and instruction has not been adapted to child nature. Later on we shall show that reading, writing and arithmetic are in no way elementary to a child, but, on the contrary, *complicated.* It has been seen that the only subjects a child finds elementary are object-lessons, singing, drawing, manual work, and play; thus then the work of an elementary school should correspond with the needs of family life. Here we see the capital error which schools commit, not so much in teaching too many subjects and for too long a time, *but in not adapting the subjects to the various ages of the pupils.*

We begin with subjects which a child neither needs nor desires, and which therefore it simply accepts mechanically; we dispute or only partly satisfy the needs of children, teaching them subjects which are not elementary, and treating many "modern" subjects in a wrong way. We approach the

children in an artificial way, and oblige them to adapt themselves to our methods—in fact, we think too much of the school, and too little of the pupil. The systems of our teachers are methodical, but not psychological; they follow the curriculum, but they cannot understand the minds of the children; they feel obliged to obtain certain results, instead of furthering the development of their pupils.*

These facts will be shown more clearly

* We are speaking here only of children who are normally developed. It would be sinful, even if it were not stupid, to begin by putting feeble-minded children into special classes only to be trained according to a more reduced programme. A large number of highly intelligent children are lost in the stream of life, and in other cases, where intelligence is deficient, we work as if the degree of general (universal) culture depended on success. What can be more inconsistent and ill-advised?

Where there is no water it is useless to plant; where there is no earth nothing will grow. Absence of light means absence of life, and when the brain refuses to work, even the best method is of no avail. Weak-minded children should be treated with love, and brought out into the air and sunshine; their small capacities should be used for games, manual work and easy exercises, thus developing what little intelligence they may have; for such children, curricula and time-tables are simply pedantic, and should be entirely abolished.

when we have discussed the elementary subjects at present under consideration ; for much as schools have erred in other ways, they err still more with respect to these subjects.

We notice during the school life of a child certain periods of transition which cause teachers much trouble, and are seldom treated successfully. First going to school is a surprising and most important event in the life of a child ; other steps are taken when printed letters are used instead of written ones, when the pen is used instead of the pencil, and when lessons in pure arithmetic take the place of object-lessons. Another transition is the commencement of " modern " subjects, such as natural history, history and geography; while the last, and most important one of all, is when a child leaves school. Conferences, examination reports, pamphlets have called our attention to these periods of transition, while various methods have been tried to render progress easier. But no success has been obtained,

and we have reverted to the old methods of filling up these gaps. The chief thing has been forgotten, viz., that a developing method does not concern filling up gaps, simply because it smooths the path we tread with the pupils. The very existence of such gaps ought to have called the attention of educationists to the fact that either the material or its employment has not been congenial to the childen, for if we study mental life, and its development, we find no sudden transitions; everything is prepared and forecast, each mental process following another already acquired : such is progressive development.

We see here again, as already remarked above, that a child feels a need only for things congenial to its nature. Let us ascertain if this need is felt for the subjects hitherto called " elementary," and then give the latter their proper place in the school curriculum.

1. *Writing.*

If at the end of its first school year a child

knows how to write whole sentences, both School Board and parents are delighted. But only the teacher and the pupils—sometimes also a mother—know how much trouble has been experienced in attaining this end : injury to the back, eyes and fingers of the pupil ; harshness, even punishment from the teacher. We propose to disregard the vanity of those attending the examinations and only seek to do justice to the children.

When we follow the course of writing, we are struck by the fact that after the third school year, sooner or later, the pupils begin to write carelessly, many wrote better when in the second class than they do when in the fifth, thus, in spite of lessons in handwriting, the pupils get worse. The causes of this phenomenon are various, but they are primarily due to the writing materials used. Slates and slate-pencils are not suitable writing materials for the junior class of a school : in fact, a child's fingers are not then strong enough for writing, and so they become bent. Then all at once the children

have to write with a pen. A pen is a softer writing material than a slate-pencil, and so inky lines are drawn. A child must write in a different way with a pen, if it is to do so easily and well, than it did with a slate-pencil: during this change its handwriting becomes unsteady, because the child has to unlearn what it has practised with much trouble for two years. As soon as it goes back to the slate-pencil, a child likes to write in small letters, because a small handwriting looks nicer: thus, in consequence of unsuitableness and change of material, the handwriting of most school children lacks character and firmness.

The second reason is of a more technical (scientific) nature. For years the pupils are accustomed to writing on a slate: as soon as anything has been written and examined it is rubbed out, and this process is constantly repeated, and becomes the regular practice of writing lessons. In this way a child never acquires the idea that its work should have permanent results: it cannot see why

it should write properly, for after an hour all is rubbed out by the sponge: thus a child is apt to become superficial, and takes no interest in its handwriting.

Then again the dust made by the slate-pencil is untidy and unhealthy.

For these reasons a change should be made in the writing materials: the most suitable for young children are pencil and paper; for older ones, pen and ink. In the United States nothing else is employed—an example which ought to be followed. However, the improvement is a small one compared with others we wish to effect.

Let us examine how writing is taught: we too often forget the process, and so expect from a child things it cannot do. For instance, to write and know the letter "i" the following psychological steps are necessary:

1. To discover the letter "i" in a word or sound.

2. To learn the sign of this sound.

3. To impress the sound and sign on the mind.

Pupils of the junior class are quite unable to analyse words into sounds, for such analysis does not lie within their nature. For a child a sound is *not elementary ;* it must first learn it by spelling : only notions and single sentences are natural to a youthful mind.

The matter becomes still more complicated in that the sound "i" is only accessible to the ear, while the written letter "i" has a value only for hand and eye : the sound "i" and the sign "i" have nothing in common. Thus the learning of a letter is a very complicated process ; it is quite beyond the development of children in the youngest class, and so can only be learned mechanically. The forms of the letters also are difficult for a youthful hand : compared with letters, the types of notes in music are much simpler ; nevertheless we begin much later teaching musical signs, thus violating the principle of proceeding from the simple to the complex.

With such considerations no one can maintain that children should begin their

school work by learning to write: and the person who points to the good results of the old plan affirms what has to be proved. For it is a fact that, among the masses, reading and writing have made little progress. This is shown by the meagre results of the examinations for recruits, the little interest adults show for these subjects, the need for continuation schools, and the cry for school reform.

We overlook another important fact. It is easy to prove that the method of instruction in speaking, as well as in reading, writing, and other subjects, was not derived from psychology, but from the history of methods. The method followed was not inductive and psychological, but historic and dogmatic. This is because psychology, as a science, has been studied too recently to have been well consulted in this matter.

Let us return to writing. Our instruction in writing is *premature and unmethodical:* we can see at a glance that it does not belong to language, but is derived from *drawing.*

Writing combines capacity of eye and skill of hand: thus the enigma is solved. Drawing is an elementary subject, writing is a special method of giving written signs to vocal elements. Drawing is much more important than writing, and more generally used. For most people, drawing is much more useful than writing; *a person who draws well writes well, but not vice-versa.* Hitherto we have sacrificed the universal to the particular, the useful and easy to the one-sided and difficult.

The course of writing lessons which we propose here is very simple; it is preceded by simple exercises, which belong to the early school years; according to the development of the children they are as follows:

A teacher should use moral exercises described above as a basis for ultimate writing lessons. Now such exercises have another aim. In consequence of lacking a proper understanding of words, only few children, on entering school, can speak

correctly and clearly: the teacher finds at once a wide field of operation.

We should let the pupils form sentences about all the objects which they can see, and call these objects by their names, until name and thing have become one. Then we should divide the sentences into words and exercise the stock of expressions by the ear. Then we should begin to spell and form words out of the sounds, and thus through the ear we should be led up to spelling.

Now, we require a sign for each sound; we learn this in drawing, and it is practised at the same time as in vocal exercises. As a final exercise, we should draw the outline of simple objects, such as leaves, eggs, crosses, thus giving a sign to each object.

The next exercise is to find a written symbol for each idea; in the speaking exercises we met with the words, "angle," "square," "cross," "circle," &c., for these we draw figures:

Angle = < Square = □
Cross = + Circle = O

What we do now differs essentially from the powers of the first exercise. We first made visible what we had *seen*, now we make visible what has been heard. In this way we come nearer to writing.

But drawing is not limited to these matters only; the point is not to reproduce figuratively what has been seen and heard, but to train a child's eye and hand to see and represent forms.

If pupils have practised in frequent exercises, lines, circles, and ovals, it is easy for them to draw the forms of *a*, *b*, *c*, *d*, &c., and reproduce these letters accurately ; in fact, in drawing one has acquired the capacity of forming letters before they are needed for writing.

Hitherto, we have practised sounds and exercised forms, but as they have nothing in common, they have been taught separately.

We have now arrived at the third stage. The word we *hear* must be made *visible*, but not in sketching it ; for only a few things can be described in that way, but in such a

way that each sound receives its proper sign ; the word *hat*, for instance, is divided into the letters *h*, *a*, *t*, and then written down.

When this has been once begun, pupils make quick progress in writing, and it is quite possible that, by the end of the first year, a child can write down a whole exercise readily. Thus, at the end of the fourth school year, better results are obtained than has hitherto been the case.

Having thus explained how writing should be taught we have proved at the same time that it is a complicated operation and one not natural to children : but it is certain that if writing be taught in the way here proposed, it will no longer be regarded by the learners as a compulsory and perfunctory affair.

The above-mentioned exercises greatly facilitate the learning of writing, and children thus unconsciously attain the required skill. The longer we prepare, the quicker the child will progress when it begins to write. In this way it appreciates writing because it

obtains thereby the means of expressing itself on paper.

For instance, it we speak of a plant and spell the words in speaking exercises, the pupils will be able to write short compositions or dictation. Thus, without mechanical drill, we can obtain in the space of two school years results which hitherto have been very imperfectly obtained in seven. A child is able to name what it sees, to spell and write down what it hears and speaks. Thus the pupils become independent in writing, they know how to deal with new things and so do not find them difficult. To train pupils to become independent should be the very aim of school work.

2. *Reading.*

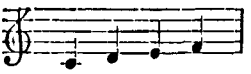
Learning to read is, in common with learning to write, an analytico-synthetical process, for in both, we divide the complex into parts and then re-unite them. After much practice we learn to regard words as units, although at first they were only con-

sidered as so many letters. Writing is derived from symbols, *i.e.*, from exercising the *hand*. Reading at first from object lessons, *i.e.*, exercising the *eye*. For both the ear is indirectly employed, though it is not directly necessary, for the deaf and dumb can learn to read and write.

By "reading" we generally mean pronouncing aloud written or printed words. This definition, however, is too limited; for reading, in the widest sense of the word, is much more important. Looking even at objects and pictures, trying to guess the thoughts and intentions of people by their gestures, are a kind of reading.

Reading is first an inward experience of what we see, and then the reproduction of this experience by speech. This is seen in a child's mental development. A child knows a large number of things before being able to call them by their right names. In talking, a child gives things names; then, when seeing their pictures or hearing their names, it pictures the objects again to itself.

We here see the powers of identifying the picture with the object itself, as soon as a clear conception of the latter has been formed. These preliminary exercises should be practised in the early school years.

Reading itself should be developed as follows. After the eye has been sufficiently trained to identify pictures and objects, and that ability has been attained to call such by their proper names, we can begin to exercise the child's *ear*. The teacher should name the objects, and the pupil show the corresponding pictures. Then the former should sing do-re-mi-fa, and write the notes

he should spell a, b, c, and give the letters; and all that is written should be reproduced in reading. A word should be spoken, written, spelt, and then read. These exercises may be varied: we may start with writing, reading, or speaking; in any case, eye, ear, and hand should be occupied by turn.

We reach, then, the last stage of proficiency at school, when reading becomes subservient to speaking—that is, when we read for the sake of acquiring thoughts. But even at this stage a school should devise a more direct and simple method, and the first exercises, regarding both what is descriptive and figurative, should be for the ear. If we have to read concerning a tulip, we should first show the plant, then describe and discuss it; only after that can we read profitably about it. If a tale or poem is to be read, it is better first to tell the former or recite the latter, then to repeat the contents, and, last of all, to read it. That this is rarely practised is shown in the case of learning by heart. If the pupils have to read the poem at once, and then repeat it until they know it by heart, they recite it in a mechanical manner, distorting things so that they lose all sense and meaning. But if first we recite a poem well, discuss and repeat it, if, in passing from the contents to the form, we exercise as soon as possible

the "logical," and not the "mechanical," memory, we thereby enable the child to exercise its power of memory, and impart useful knowledge into its mental life.

Perfection in reading is seldom attained at school: but school teaching can guide a pupil so that later on he discovers for himself the way to read proficiently.

3. *Arithmetic.*

Arithmetic is not a subject by itself for a primary school, but a special kind of object-lesson: no connection exists in a child's mind between figures and the objects to be counted: it must see by experience what the figures 3, 7, 40, mean in order to form an idea of them. We must explain and emphasise the meaning of the words: only when a child in pronouncing the word "five" pictures to itself five things, does the word imply a meaning. Arithmetic therefore has, for a child, a figurative value. Thus many people have quite an erroneous idea as to how a

child learns arithmetic ; they think that only the brain is at work, and that the figures are independent perceptions. Arithmetic can be taught children only through the senses : it must learn that similar perceptions exist at the same time, or follow each other immediately. Let a child observe some trees or the sounds of a bell : in noticing one, two, or more of these, a child learns to regard them as a combined notion, and so begins to understand arithmetical symbols. A thorough knowledge of these symbols is most important, and they must be practised as long and as often as may be found necessary, until they are thoroughly acquired. With few exceptions, schools proceed much too quickly with arithmetic : the undesirable results of so doing are seen when one begins to teach simple arithmetic to less talented children. *One* error is especially connected with forming numerical signs : only the eye is trained, ear and hand are neglected : yet numerical signs should be practised with all three organs.

1. The eye should be trained by means of lines, ciphers, stones, &c.

2. The hand can be occupied by taking away and counting peas, bullets, stones, &c., without the help of the eye.

3. The ear by counting the strokes of a clock, or footsteps, or notes struck on a piano, &c.

These sounds should be produced unseen by the child, for instance behind his back: if such exercises were continued, the lesson would be animated, varied and successful.

Then, again, there is in the limits of arithmetical symbols, we must remember, another lack of clearness in general opinion. A child cannot operate with high figures, although many think it can; and if a school curriculum demands the exercise of numbers from 1 to 100, a fatal mistake is committed.

Less intelligent children get perplexed even at the number 6, as the fingers of one hand are not sufficient, and they must count successively to understand this number. As

regards the next numbers 7, 8, 9, such persons often pass their whole lives without being able to realise that 7, 8, 9, &c., are unities. Older people find the same difficulty, and if we see eleven persons in the street, we require considerable time before we are certain whether there are 10, 11 or 12. Our language gives us a helping hint, for it counts until 12 and then begins a new system.

thir - teen	four - teen	fif - teen
3 + 10.	4 + 10.	5 + 10.

Our language has, therefore, fixed 12 as a basis, but nature (hands and feet) point to 10 as being easier. So we must emphasise this fact, that with children the notion of numbers does not go beyond 10. In ordinary popular arithmetic 10 is the radix, other numbers being made up by a repetition of similar forms. After the number 10 we no longer deal with what is demonstrative, and continue arithmetic by other means. 10 is taken as a single perception, and the numbers 1 . . . 9 are brought into con-

nection with it: thus: $10 \times 4 = 40$; $3 \times 10 = 30$, &c. From 10 to 100 there are certain favourite numbers for counting, *e.g.*, 20, 25, 50.

It is easy to see what we should emphasise in teaching arithmetic.

1. By repeated exercises one should ensure absolutely clear notions of the numbers from 1 to 10.

2. These perceptions, obtained from inspection, of unity from 1 to 10 should be applied in mental arithmetic.

3. If we continue arithmetic, let preference always be given to practical exercises.

4. As we advance in the subject, we should always take the numbers 1 to 10 as basis, *e.g.*:

$$867 = 800 + 60 + 7.$$
$$800 = 8 \times 100. \qquad 100 = 10 \times 10.$$
$$60 = 6 \times 10.$$
$$7 = 7.$$

The more we employ the senses, the clearer become the perceptions: the arabic

figures must be exercised in the same way as the letters of the alphabet ; then, as soon as applied arithmetic is taught in the upper classes, we should combine the figures 1, 2, 3, 4, &c., with the same number of objects. There is one requirement which should be regarded as fundamental : we should begin with *mental* arithmetic, and only when this has been thoroughly mastered ought we to proceed with the same figures to written arithmetic : the former is of much greater value to people in general than the latter. Furthermore, written arithmetic is valuable and certain only when it is founded on mental work. Thus we should proceed to written solutions only when the new calculations have been solved mentally.*

In this way we avoid two errors : we neither ask from a child what is above its comprehension nor teach the solutions mechanically. If all arithmetic begins with

* The objection that we commence arithmetic too late is not justifiable. We suggest practising as soon as possible the foundation of arithmetical symbols and mental work. According to our plan, it is only written arithmetic which is deferred.

mental calculations, the same demands are repeated which we emphasised so strongly when treating the exercises in writing and speaking: in all teaching let us employ the *ear* and save the *eye* as much as possible—the latter is soon tired—for arithmetic is really a particular kind of speaking exercise, a fact too little kept in mind by teachers.

In speaking on this subject there is still another popular error to be avoided. It has once been said and often been repeated that arithmetic develops the brain only, and some teachers even think that the subject should be taught in an uninteresting manner lest the pupil's reasoning powers should suffer! It would be difficult to find a greater error. All theories regarding the specific powers of the mind should be abolished, and we can never influence a child's reason without touching other sides of its mental life: but, putting aside the psychological considerations, let us look around in our own classroom. Where can we find displayed more ambition, more careful searching for the

solution, than in early lessons in arithmetic? Look at a young pupil's distress when his solution is wrong, his joy when it is right: a good pupil is uneasy when his rival overtakes him or when he does not know how to solve a problem, how excited he is, when after a tedious search he thinks his solution is right. We read that Leibnitz used to get up in the middle of the night to work at his calculations. When Newton felt he was approaching some great mathematical result, he was too excited to finish his work. Leonardo da Vinci maintained that only what had been proved by mathematics could be called scientific, while a learned writer of the present day calls a mathematician a born idealist. Arithmetic, when practised in a way congenial to a child, is an exercise calculated to gradually develop every part of the mind.

In conclusion, we see that reading, writing and arithmetic are not *elementary* subjects, and cannot be considered as the chief branches of education. Up to the present time they

have been one-sided exercises, serving one-sided practical needs, and all three have the same basis. Writing requires a good eye, and capacity for correct drawing; reading employs eye and ear; arithmetic demands good conceptions, formed through the use of eye, ear, and hand. Object-lessons, in their different branches, are *elementary* and of *chief importance;* they are necessary both for children and men. Reading, writing and arithmetic, provided that they are practised carefully, may be considered as integral parts, and are sufficiently practised in the higher classes; but as elementary and chief subjects they have no proper or justifiable place in the lower work of a primary school.

VI

THE PRACTICAL WORKING OF THE NEW PLAN

THE public schools of the present day are based on three acquisitions, which deserve honourable mention. (1) Both teachers and authorities perform their official duties in a way which merits grateful acknowledgment. This fact is so evident that it needs but a single glance, at the present conditions, to show that further proof is not required. (2) Among the Swiss in general, and on individual school committees, we find a willing spirit of self-sacrifice to an extent which has never existed before; this is the best guarantee that urgent necessary reforms will find a ready hearing. (3) Finally, we remark an increase in intelligence and a greater

interest in primary schools; in many places new school-buildings are being erected, and old ones enlarged and improved; the need for organic school reform is being felt.

On the other hand, nearly everywhere, there are great deficiencies in primary schools. (1) Want of sound training of young teachers suited to their work and calling. (2) Absence of sympathy between school and home, and of harmonious co-operation between school committees and their teachers: (3) a want of development of the school, to be effected, not by rules but by a due appreciation of popular education. Instruction cannot possibly aim at the bodily and mental development of the children unless these three conditions are all fulfilled. We must aim at founding a primary school which is really independent: independent of political parties, of the aims of practical life, of the higher schools, and of those who blindly follow method: a school which exists only for the sake of the children, and which, above all, is on psycho-

logical and not historic methodical foundations.

This pamphlet has shown why this latter result can *not* be obtained from primary schools as at present worked : in fact, we feel persuaded that the existing primary schools, with their present system and method of teaching, have reached the limits of their results. However much we may methodise and exert pressure, the amount of work done in them can hardly be increased : the system is artificial in every detail, and can never give satisfaction. The chief error of the system has already been exposed, it consists in paying the chief importance to method instead of to psychology : this has obliged the teachers to take the *school plan* as a basis, and not the children themselves.

We have shown also what must be done to reform schools. Practical instruction should form the basis of primary teaching ; instead of instruction chiefly formal and which easily degenerates into learning empty names. This reform must be regarded as

the foundation on which the school should stand. If we do not take such a basis for future reforms, we may continue building and repairing, but we shall never rear a perfect edifice.

There may be many who agree in principle with the views set forth in this treatise, but still doubt if its proposals can be carried out: others may fear that the whole present school system would be revolutionised if these views were adopted. To disperse doubts or anxieties we will endeavour to show how our school-plan can be practically worked: in order to do so, we make a few preliminary remarks which, we trust, will remove any misunderstanding. Every reform needs time and consideration before it can take root, and we are fully aware that many places could not accept all our proposals immediately.

There is always sufficient time to consider carrying out the details of a plan when the latter has been approved of and adopted in the main (principle): working out the

details can be entrusted to experts. The chief thing here is to show where we stand and what task lies before us. What impedes the adoption of our proposals is the fact that no *modern school* serving as an example exists. School authorities often dread new experiments, and we cannot expect that any school would undertake to try our proposals to see if they would not lead to thorough success; but there is no fear of doing any harm by the *better* system supplanting too quickly the one that is already good.

At the present time the curriculum of nearly every school is deficient and faulty, making any national union of tuition and exercises quite impossible. It is nowhere pointed out that in the higher classes the number of lessons should be diminished and more time allowed for independent work—and so, self-development—of the pupils. The weekly list of lessons contains a majority of "elementary" subjects: the number of these is three times that of the branches in art and seven times that of such "modern"

subjects as history, geography, natural history, &c. Sometimes in a curriculum the latter subjects appear only *pro formâ*, and, considering how badly they are taught, it would be better to omit them altogether. This incongruity has arisen from the fact that too much importance has been attached to "elementary" subjects, and that a kind of formal instruction has been regarded as the chief aim in all classes. After what has already been said in this booklet it will be superfluous to mention the shortcomings and errors on which the present curricula are based: we prefer rather to classify the postulates given above. As we have produced our new proposals in order, we now distinguish between subjects which especially require (A) Instruction and (B) Exercises.

A. Instruction.

1. Object-lessons which treat of
   - *a.* Natural Objects.
   - *b.* Local Geography.
2. The treatment and display of articles of

art and manufacture which lead up to the history of civilisation.

B. Exercises.

1. For the body in general:
   - *a.* PLAY.
   - *b.* GYMNASTICS.
   - *c.* WALKS.
2. For the eye and hand:
   - *a.* DRAWING.
   - *b.* MANUAL WORK.
3. For the ear:
   - *a.* LANGUAGE.
   - *b.* SINGING.

We do not of course wish to imply that the subjects marked (*A*) do not require exercises, or that those marked (*B*) do not require instruction: on the contrary, we see at a glance that for many subjects both are necessary. Likewise in none of the exercises is the hand the special organ alone employed. In both instruction and exercise *the whole being is at work.* What justifies the proposal of this scheme is the fact that sometimes one

circumstance is of more importance than another, and to point out this circumstance is our special task. Furthermore we wish to show what relation we believe Instruction

I. *Primary School.*

Subject.	Class I.		Class II.		Class III.	
	Inst.	Ex.	Inst.	Ex.	Inst.	Ex.
Natural History	+	.	+	.	+	.
Geography	+	.	+	.	+	.
Narration	+	.	+	.	+	.
Drawing	+	+	+	+	+	+
Manual Work	+	+	+	+	+	+
Language	+	.	+	.	+	.
Singing	+	.	+	.	+	.
Games	+	+	+	+	+	+
Walk	.	+	.	+	.	+

N.B.—The objection that we defer reading and writing too long cannot easily be discussed until our proposals have received a fair trial.

and Exercise should bear to each other in different classes: this scheme is suggested for want of any practical example, and can only be explained in a general way. To give an example. Let us designate the classes for the first three school years as "Primary,"

and those for the following three years as "Secondary," the relations should be somewhat as shown in the accompanying tables.

These schemes necessitate a few remarks.*

II. *Secondary School.*

Subject.	Class IV.		Class V.		Class VI.	
	Inst.	Ex.	Inst.	Ex.	Inst.	Ex.
Natural History	+	+	+	+	+	+
Geography	+	+	+	+	+	+
History	+	+	+	+	+	+
Drawing	+	+	+	+	+	+
Writing	+	+	+	+	+	+
Manual Work	+	+	+	+	+	+
Arithmetic	+	+	+	+	+	+
Reading and Language	+	+	+	+	+	+
Singing	+	+	+	+	+	+
Games	.	+	.	+	.	+
Gymnastics	+	+	+	+	+	+
Walk	.	+	.	+	.	+

As will be seen, we have given many subjects the same names which it has been customary to use hitherto in school schemes of work, but the teaching of these

* The plans for the other classes can easily be continued; according to the subject fixed, instruction and exercise vary in importance.

subjects must be quite different. For instance, in the primary school curriculum, natural history and geography are mentioned: they mean here only so many object-lessons. Under "Narration" we include both descriptions of how artificial objects, such as tools, furniture, houses, etc., are made, and also the relating of tales. Regarding language, we start from the principle, already fully emphasised, that all instruction, even that which seems quite remote from a linguistic nature, should be used *in the service of language:* this was also shown in the scheme of work for a secondary school. The first three subjects, then arithmetic, writing, reading, singing, also drawing to a certain extent—for in the treatment of these, facility of speech is increased—all these subjects are in some degree connected with language. When we classify natural history, geography, narration, singing, etc., as "exercises," we mean that these subjects should be taught orally, and they afford, to a great extent, the means of practising speaking.

Later on, composition can be given, diction, tales and poems may be written as soon as the children are capable of the work. From the *object* we wish to lead up to the *vocal expression*, for we are certain that a grammatical or methodical instruction of a language is premature for a child seven to fourteen years old.

We do not wish to fix the time to be employed either for lessons or for exercises; it is preferable that the arrangements made for them should be the result of conference and advice. Nevertheless, it should be easy, if our remarks are followed, to establish some essential facts as to the duration of the lessons in the different subjects. There is one fact to be emphasised—lessons should be *short*. For pupils of a primary school, a lesson of fifteen minutes is long enough; in the higher classes of a secondary school twenty minutes should be the maximum. A rapid change of subject is natural to quite young children; in many ways it seems different as regards exercises, but in reality

it is the same. As a rule, children only remain long at the same work or game when they find a certain variety in it. It is hardly necessary to remark that much more time should be devoted to exercises than to lessons. The *ideal* aim of a teacher ought to be *to make his pupils more and more independent, himself less and less necessary.* It is quite wrong for a teacher, in excess of zeal, to wish always to hear "his own voice"; to be constantly speaking, and answering his own questions; only when we oblige a pupil almost unconsciously to practise in various different ways what he has learned, will he grow independent in his knowledge and show his true character; only thus does instruction "bear fruit." What we make out of an idea, and not what we intend with it, is the important matter; here is a striking example: Under the pretence of getting a pupil to work by himself, *home lessons*, a very great evil, have been incorporated into the school work. To copy some pages, to work out some sums, to learn some paragraphs of

history or geography, to finish a drawing, etc.—in all such forms home lessons are to be condemned. And why? They impair a child's health, introduce a wrong system of working, tend to diminish the teacher's energy, they favour cramming for examinations—in a word, they are a fungus in the life of a child.

If a teacher induces his pupils to work independently, he will find that they derive much benefit from this liberty of action; let him ask his class: "Have you noticed any new flowers flowering, or fruit ripening?" "Who has made any observations about the lives of animals?" "At what have you played?" "What have you read or done?" "What have you seen on the mountains, near the lake, in the streets?" In other words, school should not hang over a child like a dismal shadow, but should rather be like a ray of light opening up to him vistas of the outer world.

If we examine this plan for itself both innovations and advantages are easily recognisable.

1. From the first year, the instruction embraces only *elementary* things congenial to a child.

2. The quiet exercises all refer to various matters, and are quite in accordance with a child's capacity.

3. As time goes on, and the pupils become older, the "exercises" take precedence over the "instruction."

4. So far as is justifiable, the formal is developed from the elementary.

5. The individuality of each pupil is developed as much as possible.

If this plan could be put into immediate execution, we should meet with three kinds of schools: (1) Schools with one class; (2) schools with several classes; (3) schools with all the usual classes; probably the second sort would be the most general.

Wherever there is only one class, our plan could be put into practice at once. Where several classes have to be taught at the same time, our plan has the advantage of offering more quiet exercises than has hitherto been

the case, an advantage which will greatly facilitate discipline. If there are difficulties, these will not arise from our plan, but from the arrangements of the schoolrooms. Here we meet with difficulties, which we admit exist for a great number of country schools, but they could be surmounted in process of time. In schools where more than one class is held in the same room, the teacher should try to practise either games, gymnastics or manual work for all the classes at the same time, and chiefly out of doors or in the gymnastic hall.

Forms ought to be constructed so as to be suitable for quiet occupation or manual work, as well as for drawing, writing, &c.

For instance, sometimes we might adopt the following plan: the first and second classes could be left alone playing out of doors, whilst the third would receive a lesson. In any case the difficulty of teaching in a successful way would be less than it is at present, and the exercises would give more advantages than drawbacks to school life.

In schools with more than one class it is natural that lessons and quiet occupations, instruction and exercises, should be practised at the same time: the lessons demand the entire energy and attention of the teacher, while the exercises require only his presence. For this reason we find it necessary *to have two teachers working together.* Let us suppose that each class at present contains fifty pupils, then 100 children would be given to two teachers working together: the number of masters employed would in many places remain the same. One master could teach in class-room No. 1, while the other could superintend the exercises in class-room No. 2, or in the open air: each master could thus work better and easier, and the unity of aim would facilitate the working together.

This method of procedure is not absolutely new: even at present, although in a different way, teachers have to work together. Primary and secondary schools assist each other, and even in the same

classes teachers divide the school work between them. What we advocate is to endow primary schools to some extent with what is already systematically developed in secondary classes.

CONCLUSION

In the course of our investigations we were compelled to leave unanswered many questions touching primary schools, as the discussion of them would have carried us too far. However, we now wish to devote a small space to them.

A child, on entering school, belongs partly to it and partly to its family, and as it is obliged to pass many years in this dual position, we think it important that school and home should work in harmony together.

At home, at school, out of doors, mutual social intercourse takes place in countless different ways: to these we have not given much attention, but they exert a great influence over a child's life. We think that as far as possible children should have

entire freedom in this matter, and we should interfere only to keep them from harm. In fact, here is an opportunity where parents and teachers can observe the children, thus obtaining a better insight into their characters.

Moreover, we think it quite natural that boys and girls should be trained at the same school: as long as the family, the playground and social life bring them together, and children grow up together to their mutual benefit, schools make a great mistake in keeping them separate.

We also think it would be natural and advantageous if female teachers were treated in the same way as male teachers: as long as father and mother are equally needful for the education of children, we regard male and female teachers as an excellent complement to each other, and expect the best results from their harmonious co-operation.

A child should not begin its education in a primary school before its seventh year is completed. Younger children should remain

at home or attend a well-regulated kindergarten school.

If children of weak intellect are excluded from the ordinary schools, the most talented ones might be treated in the same way: the former cannot follow, and the latter are kept back. However, this separation involves a great responsibility; the former are often not so dull as we had supposed, but have only been neglected, the latter are often not really talented, but simply precocious. However, a more individual treatment of each pupil would remove many difficulties.

Teaching ought to be based on humane intentions, and be free from bias. A good primary school should be uninfluenced by politics and social status.

A negligent teacher resorting to corporal punishment is twice neglectful: the right to administer such, in extreme cases, belongs only to a teacher whose actions are controlled by a sense of duty, and he will seldom make use of it.

The present system of examinations is an evil, and great progress would follow if they were abolished : it is always possible for any one to become acquainted with the work of primary schools. If such examinations were omitted, the school year could end with some earnest festivity, which would unite school, family and community in a suitable way.

Finally we are of the opinion that the *art* of teaching can be developed and refined, but the *gift* of teaching can be obtained by no earthly method. The art of teaching is based on self-discipline ; the gift is based on the longing desire to impart knowledge to children in a kind and loving manner ; the art is a matter of the intelligence, the gift one of the heart.

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